CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CA0083861
ORDER R5-2026-XXXX

TENTATIVE WASTE DISCHARGE REQUIREMENTS FOR THE AEROJET ROCKETDYNE, INC. GROUNDWATER EXTRACTION AND TREATMENT SYSTEMS, ARGET, GET EF, GET HA, GET J, GET KA, GET LA, GET LB, GET AB, WRND GET, SAILOR BAR PARK GET, COOLING TOWER 20019, GOLDEN STATE WATER WELLS AND LOW THREAT DISCHARGES SACRAMENTO COUNTY

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

Table 1. Discharger Information

Discharger:	Aerojet Rocketdyne, Inc.
Name of Facility:	Groundwater Extraction and Treatment Systems ARGET, GET EF, GET HA, GET J, GET KA, GET LA, GET LB, GET AB, WRND GET, Sailor Bar Park GET, Cooling Tower 20019, Golden State Water Wells and Low Threat Discharges
Facility Street Address:	2001 Aerojet Road
Facility City, State, Zip:	Rancho Cordova, CA 95742
Facility County:	Sacramento County

The Discharger is authorized to discharge from the discharge points set forth in Table 3 on page 2 of this order.

Table 2. Administrative Information

This Order was Adopted on:	**XX April 2026**
This Order shall become effective on:	**1 June 2026**
This Order shall expire on:	**31 May 2031**
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 (CCR), and an application for reissuance of a NPDES permit no later than:	**31 May 2030**
The United States Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Central Valley Region have classified this discharge as follows:	**Minor Discharge**

I, Patrick Pulupa, 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, Central Valley Region, on **XX April 2026**.

_____
PATRICK PULUPA, Executive Officer

Table 3. Discharge Locations

Outfall	Effluent Description	Outfall Latitude (North)	Outfall Longitude (West)	Receiving Water
Outfall 001	Treated Groundwater from ARGET, Groundwater Extraction and Treatment EF (GET EF), GET J, GET AB, White Rock North Dump (WRND) GET, Cooling Tower 20019	38º, 37', 60" N	121º, 16', 07" W	Buffalo Creek to American River
Outfall 002	Treated Groundwater from GET LA	38º, 36', 29" N	121º, 18', 33" W	American River
Outfall 002A	Treated Groundwater from GET LB	38º, 37', 31" N	121º, 18', 13" W	Drainage Ditch to American River
Outfall 004	Treated Groundwater from GET KA and Arden Cordova Well 25 (AC-25)	38º, 36', 07" N	121º, 19', 02" W	Drainage Ditch to American River
Outfall 006	Treated Groundwater from GET HA and Arden Cordova Well 18 (AC-18)	38º, 32', 18" N	121º, 18', 59" W	Drainage Ditch to Morrison Creek
Outfall 007	Treated Groundwater from Sailor Bar Park GET	38º, 37', 59" N	121º, 14', 21" W	Sailor Bar Park Pond
Outfall 008	Treated Groundwater from Various GETs	38º, 38', 6" N	121º, 13', 13" W	American River at Natomas Stilling Basin
Outfall 009	Treated Groundwater from Various GETs	38º, 38', 12" N	121º, 12', 11" W	Alder Creek
Outfall 010	Treated Groundwater from WRND GET	38º, 34', 58" N	121º, 11', 14" W	Morrison Creek

Table 3 Note:

1. Outfall 003 and Outfall 005 are inactive and no longer proposed for use.

WASTE DISCHARGE REQUIREMENTS
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TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Aerojet Rocketdyne, Inc. (Discharger) Groundwater Extraction and Treatment Systems ARGET, GET EF, GET HA, GET J, GET KA, GET LA, GET LB, GET AB, WRND GET, Sailor Bar Park GET, Cooling Tower 20019, Golden State Water Wells and Low Threat Discharges (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

The California Regional Water Quality Control Board, Central Valley Region (hereinafter Central Valley Water Board), finds:

A. Legal Authorities. This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 3 subject to the WDRs in this Order.

B. California Environmental Quality Act (CEQA). Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA (commencing with section 21100 of Division 13 of Public Resources Code). Additionally, the adoption of land discharge requirements for the Facility constitutes permitting of an existing facility that is categorically exempt from the provisions of CEQA pursuant to CCR, title 14, section 15301.

C. Background and Rationale for Requirements. The Central Valley Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G through H are also incorporated into this Order.

D. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections **IV.B and V.B** are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

E. Monitoring and Reporting. 40 C.F.R. section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Central Valley Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements.

This Order and the Monitoring and Reporting Program, provided in Attachment E, establish monitoring and reporting requirements to implement federal and State requirements. The burden, including costs, of these monitoring and reporting requirements bears a reasonable relationship to the need for these reports and the benefits to be obtained therefrom. The Discharger, as owner and operator of the Facility, is responsible for these requirements, which are necessary to determine compliance with this Order. The need for these requirements is further discussed in the Fact Sheet, Attachment F.

F. Notification of Interested Persons. The Central Valley 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.

G. Consideration of Public Comment. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED that Order R5-2020-0051-003 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Central Valley Water Board from taking enforcement action for violations of the previous Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of wastewater from the Facility, as the Facility is specifically defined in Attachment A and described in the Fact Sheet in section II.C, in a manner different from that described in this Order is prohibited.

B. The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by Federal Standard Provisions I.G. and I.H. (Attachment D).

C. Neither the discharge nor its treatment shall create a nuisance as defined in section 13050 of the Water Code.

D. Discharge of waste classified as ‘hazardous’, as defined in the CCR, title 22, section 66261.1 et seq., is prohibited.

E. **Maximum Daily Design Flow.** Discharges exceeding a maximum daily design flow in million gallons per day (MGD) as described in Table 4 below are prohibited.

Table 4. Maximum Daily Design Flows

Discharge Point	Discharge Facility	Maximum Daily Design Flow (MGD)
001	ARGET	5.04
002	GET EF	11.52
004	GET HA	3.9
005	GET J	6.75
007	GET KA	5.11
008	GET LA	2.88
009	GET LB	1.44
010	Sailor Bar Park GET	0.58
012	Low Threat Discharges	0.01 per monitor well, 3.6 per aquifer test of water supply well start up or shut down, 14.4 four-day total maximum per aquifer test of water supply well start up or shut down
014	AC-18	2.59
016	GET AB	5.76
017	WRND GET	2.88
019	Cooling Tower 20019	0.0008
020	AC-25	1.3

Table 4 Note:

1. Discharge Points 003, 006, 011, 013, 015, and 018 are inactive and no longer used.
2. The maximum daily design flow for an aquifer test is based on a discharge rate of 2,500 gallons per minute.

F. Effective until compliance with Special Provisions section VI.C.6.b, discharge of treated groundwater to Outfall 008 and 009 is prohibited.

G. Effective until compliance with Special Provisions section VI.C.6.c discharge of treated groundwater to Outfall 010 is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Points 001, 002, 004, 005, 007, 008, 009, 010, 012, 014, 016, 017, 019, and 020 (Discharge Points 003, 006, 011, 013, 015, and 018 are no longer used)

1. All Discharge Points

a. **pH:**

i. 6.5 Standard Units (SU) as an instantaneous minimum.

ii. 8.5 SU as an instantaneous maximum.

b. **Acute Whole Effluent Toxicity MDEL.** No fathead minnows (Pimephales promelas) acute aquatic toxicity test shall result in a "Fail" at the Instream Waste Concentration (IWC) AND a percent effect greater than or equal to 50 percent.

c. **Acute Whole Effluent Toxicity MMEL.** No more than one Pimephales promelas acute aquatic toxicity test initiated in a toxicity calendar month shall result in a "Fail" at the IWC.

d. **Chronic Whole Effluent Toxicity MDEL.** No water flea (Ceriodaphnia dubia) chronic aquatic toxicity test shall result in a "Fail" at the Instream Waste Concentration (IWC) for the sub-lethal endpoint measured in the test AND a percent effect for the survival endpoint greater than or equal to 50 percent.

e. **Chronic Whole Effluent Toxicity MMEL.** No more than Ceriodaphnia dubia chronic aquatic toxicity test initiated in a toxicity calendar month shall result in a "Fail" at the IWC for any endpoint.

2. Final Effluent Limitations – Discharge Point 001

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001 for the ARGET facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-001, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 5:

Table 5. ARGET Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
1,1-Dichloroethane	Micrograms per liter (µg/L)	0.5	0.7
1,1-Dichloroethylene	µg/L	0.5	0.7
1,4-Dioxane	µg/L	3	6
cis-1,2-Dichloroethylene	µg/L	0.5	0.7
Chloroform	µg/L	0.5	0.7
Tetrachloroethylene	µg/L	0.5	0.7
Trichloroethylene	micrograms per liter (µg/L)	0.5	0.7
N-Nitrosodimethylamine	µg/L	0.00069	0.0024
Perchlorate	µg/L	4	6

3. Final Effluent Limitations – Discharge Point 002

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 002 for the GET EF facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-002, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 6:

Table 6. GET EF Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily	Annual Average
1,1-Dichloroethane	µg/L	0.5	0.7	--
1,1-Dichloroethylene	µg/L	0.5	0.7	--
1,2-Dichloroethane	µg/L	0.38	0.5	--
1,4-Dioxane	µg/L	3	6	--
Acetaldehyde	µg/L	--	--	7.3
Acrylamide	µg/L	0.05	0.05	--
Chloroform	µg/L	0.5	0.7	--
cis-1,2-Dichloroethylene	µg/L	1.5	1.5	--
Formaldehyde	µg/L	50	50	
N-Nitrosodimethylamine	µg/L	0.00069	0.0024	--
Perchlorate	µg/L	6.0	10	--
Tetrachloroethylene	µg/L	0.5	0.7	--
Trichloroethylene	µg/L	1.5	1.5	--

4. Final Effluent Limitations – Discharge Point 003

Discharge Point 003 is no longer used as all extracted groundwater from Discharge Point 003 is sent to the GET HA (Discharge Point 004) facility for treatment and discharge.

5. Final Effluent Limitations – Discharge Point 004

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 004 for the GET HA facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-004, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 7:

Table 7. GET HA Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
Chloroform	µg/L	2	5
Perchlorate	µg/L	4	6
Trichloroethylene	µg/L	0.5	0.7

6. Final Effluent Limitations – Discharge Point 005

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 005 for the GET J facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-005, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 8:

Table 8. GET J Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
1,1-Dichloroethylene	µg/L	0.5	0.7
Chloroform	µg/L	3	5
cis-1,2-Dichloroethylene	µg/L	0.5	0.7
N-Nitrosodimethylamine	µg/L	0.007	0.010
Perchlorate	µg/L	4	6
Trichloroethylene	µg/L	0.5	0.7

7. Final Effluent Limitations – Discharge Point 006

Discharge Point 006 is no longer used as all extracted groundwater from Discharge Point 006 is sent to the GET KA (Discharge Point 007) facility for treatment and discharge.

8. Final Effluent Limitations – Discharge Point 007

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 007 for the GET KA facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-007, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 9:

Table 9. GET KA Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
Chloroform	µg/L	0.5	0.7
N-Nitrosodimethylamine	µg/L	0.00069	0.0024
Perchlorate	µg/L	4	6
Tetrachloroethylene	µg/L	0.5	0.7
Trichloroethylene	µg/L	0.5	0.7

9. Final Effluent Limitations – Discharge Point 008

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 008 for the GET LA facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-008, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 10:

Table 10. GET LA Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
1,1-Dichloroethane	µg/L	0.5	0.7
N-Nitrosodimethylamine	µg/L	0.007	0.010
Trichloroethylene	µg/L	0.5	0.7

10. Final Effluent Limitations – Discharge Point 009

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 009 for the GET LB facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-009, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 11:

Table 11. GET LB Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
N-Nitrosodimethylamine	µg/L	0.00069	0.0024
Trichloroethylene	µg/L	0.5	0.7

11. Final Effluent Limitations – Discharge Point 010

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 010 for the Sailor Bar Park GET facility. Unless otherwise

specified compliance shall be measured at Monitoring Location M-010, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 12:

Table 12. Sailor Bar Park GET Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
1,1-Dichloroethylene	µg/L	0.5	0.7
cis-1,2-Dichloroethylene	µg/L	0.5	0.7
Trichloroethylene	µg/L	0.5	0.7

12. Final Effluent Limitations – Discharge Point 011

Discharge Point 011 has been destroyed and is no longer used.

13. Final Effluent Limitations – Discharge Point 012

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 012 for Low Threat Discharges of purge water and aquifer test water from monitoring wells, extraction wells, and supply wells. Unless otherwise specified compliance shall be measured at Monitoring Location M-012, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 13:

Table 13. Low Threat Discharges Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
1,1-Dichloroethane	µg/L	5	8
1,1-Dichloroethylene	µg/L	0.057	0.079
1,2-Dichloroethane	µg/L	0.38	0.5
1,4-dioxane	µg/L	--	10
Chloroform	µg/L	3	5
cis-1,2-Dichloroethylene	µg/L	6	7
N-Nitrosodimethylamine	µg/L	0.00069	0.0024
Perchlorate	µg/L	6	15
Tetrachloroethylene	µg/L	0.8	1.7
Trichloroethylene	µg/L	2.7	6.7

14. Final Effluent Limitations – Discharge Point 013

Discharge Point 013 is no longer used as all extracted groundwater from Discharge Point 013 is sent to the GET KA (Discharge Point 007) facility for treatment and discharge.

15. Final Effluent Limitations – Discharge Point 014

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 014 for the AC-18 facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-014, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 14:

Table 14. AC-18 Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
Perchlorate	µg/L	4	6
Trichloroethylene	µg/L	2.7	6.7

16. Final Effluent Limitations – Discharge Point 015

Discharge Point 015 has ceased discharge and is no longer used.

17. Final Effluent Limitations – Discharge Point 016

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 016 for the GET AB facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-016, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 15:

Table 15. GET AB Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
1,1-Dichloroethane	µg/L	0.5	0.7
1,1-Dichloroethylene	µg/L	0.5	0.7
1,2-Dichloroethane	µg/L	0.38	0.5
Chloroform	µg/L	0.5	0.7
cis-1,2-Dichloroethylene	µg/L	0.5	0.7
Freon 113	µg/L	0.5	0.7
N-Nitrosodimethylamine	µg/L	0.00069	0.0024
Perchlorate	µg/L	4	6

Parameters	Units	Average Monthly	Maximum Daily
Tetrachloroethylene	µg/L	0.5	0.7
Trichloroethylene	µg/L	0.5	0.7

18. Final Effluent Limitations – Discharge Point 017

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 017 for the WRND GET facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-017, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 16:

Table 16. WRND GET Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
1,1-Dichloroethane	µg/L	0.5	0.7
Chloroform	µg/L	0.5	0.7
cis-1,2-Dichloroethylene	µg/L	0.5	0.7
N-Nitrosodimethylamine	µg/L	0.007	0.010
Perchlorate	µg/L	4	6
Tetrachloroethylene	µg/L	0.5	0.7
Trichloroethylene	µg/L	0.5	0.7

19. Final Effluent Limitations – Discharge Point 018

Discharge Point 018 is no longer used as all extracted groundwater from Discharge Point 018 is sent to the GET J (Discharge Point 005) facility for treatment and discharge.

20. Final Effluent Limitations – Discharge Point 019

The Discharger shall maintain compliance with the following effluent limitation at Discharge Point 019 for the Cooling Tower 20019 facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-019, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 17:

Table 17. Cooling Tower 20019 Effluent Limitations

Parameters	Units	Maximum Daily
Copper, Total	Milligrams per liter (mg/L)	0.70

21. Final Effluent Limitations – Discharge Point 020

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 020 for the AC-25 facility. Unless otherwise specified compliance shall be measured at Monitoring Location M-020, as described in the Monitoring and Reporting Program, Attachment E.

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 18:

Table 18. AC-25 Effluent Limitations

Parameters	Units	Average Monthly	Maximum Daily
Chloroform	µg/L	3	5
Perchlorate	µg/L	4	6
Tetrachloroethylene	µg/L	0.8	1.7
Trichloroethylene	µg/L	2.7	6.7

22. Interim Effluent Limitations – Not Applicable

B. Land Discharge Specifications – Rebel Hill Ditch

1. When discharging to Rebel Hill ditch, the Discharger shall maintain compliance with the following limitations at Discharge Points 016 for GET AB and Discharge Point 017 for WRND GET facilities to Rebel Hill Ditch as shown in Attachment B. Compliance shall be measured at Monitoring Location LND-001 as described in the Monitoring and Reporting Program, Attachment E.

   a. No waste constituent shall be released, discharged, or placed where it will cause or contribute to a violation of the Groundwater Limitations of this Order.

   b. The discharge of treated groundwater to land shall not cause pollution or nuisance as defined by the California Water Code 13050.

   c. The discharge shall remain within the Rebel Hill Ditch area shown in Attachment B.

   d. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.

e. The discharge flow to Rebel Hill Ditch shall not exceed 5.67 MGD for Discharge Point 016 for GET AB and 2.88 MGD for Discharge Point 017 for WRND GET.

C. Recycling Specifications – NOT APPLICABLE

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations – None

B. Groundwater Limitations – Rebel Hill Ditch

Release of waste constituents from Discharge Point 016 for GET AB and Discharge Point 017 for WRND GET to Rebel Hill Ditch shall not cause or contribute to groundwater containing any of the following constituents greater than listed below or greater than natural background quality, whichever is greater.

1. Taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses (e.g., by creating off-tastes and/or odor, producing detrimental physiological responses in human, plant, animal, or aquatic life [i.e., toxicity]). (California Code of Regulations., title 22, §§ 64431, 64444, and 64449).

VI. PROVISIONS

A. Standard Provisions

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

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

   a. If the Discharger's wastewater treatment plant is publicly owned or subject to regulation by California Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to Title 23, CCR, division 3, chapter 26.

   b. 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 by failing to disclose fully all relevant facts;

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

iv. a material change in the character, location, or volume of discharge.

The causes for modification include:

(a) New regulations. New regulations have been promulgated under section 405(d) of the CWA, or the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.

(b) Land application plans. When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.

(c) Change in sludge use or disposal practice. Under 40 CFR section 122.62(a)(1), a change in the Discharger's sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the Discharger requests or agrees.

The Central Valley Water Board may review and revise this Order at any time upon application of any affected person or the Central Valley Water Board's own motion.

c. If a toxic effluent standard or prohibition (including any scheduled compliance specified in such effluent standard or prohibition) is established under section 307(a) of the CWA, or amendments thereto, for a toxic pollutant that is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Central Valley Water Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition.

The Discharger shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified.

d. This Order shall be modified, or alternately revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:

i. Contains different conditions or is otherwise more stringent than any effluent limitation in the Order; or

ii. Controls any pollutant limited in the Order.

The Order, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

e. 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.

f. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal.

g. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by U.S. EPA under section 307 of the CWA, or amendment thereto, for any discharge to the municipal system.

h. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its content.

i. Safeguard to electric power failure:

i. The Discharger shall provide safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharge shall comply with the terms and conditions of this Order.

ii. Upon written request by the Central Valley Water Board, the Discharger shall submit a written description of safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past 5 years on effluent quality and on the capability of the Discharger to comply with the terms and conditions of the Order. The adequacy of the safeguards is subject to the approval of the Central Valley Water Board.

iii. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Central Valley Water Board not approve the existing safeguards, the Discharger shall, within 90 days of having been advised in writing by the Central Valley Water Board that the existing safeguards are inadequate, provide to the Central Valley Water Board and U.S. EPA a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon

approval of the Central Valley Water Board, become a condition of this Order.

j. The Discharger, upon written request of the Central Valley Water Board, shall file with the Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. This report may be combined with that required under the Central Valley Water Board Standard Provision contained in section VI.A.2.i of this Order.

The technical report shall:

i. Identify the possible sources of spills, leaks, untreated waste by-pass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.

ii. Evaluate the effectiveness of present facilities and procedures and state when they became operational.

iii. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

The Central Valley Water Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions shall be incorporated as part of this Order, upon notice to the Discharger.

k. A publicly owned treatment works whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last 3 years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in 4 years, the Discharger shall notify the Central Valley Water Board by 31 January. A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Central Valley Water Board may extend the time for submitting the report.

l. The Discharger shall submit technical reports as directed by the Executive Officer. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in

California pursuant to California Business and Professions Code, sections 6735, 7835, and 7835.1. To demonstrate compliance with Title 16, CCR, sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

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

n. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.

o. This Order may be reopened to transfer ownership of control of this Order. The succeeding owner or operator must apply in writing requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory and certification requirements in the federal Standard Provisions (Attachment D, section V.B) and state that the new owner or operator assumes full responsibility for compliance with this Order.

p. If the Discharger submits a timely and complete ROWD for permit reissuance, this permit shall continue in force and effect until the permit is reissued or the Regional Water Board rescinds the permit.

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

r. 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 Central Valley Water Board by telephone (916) 464-3291 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Central Valley Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of

noncompliance, and shall describe the measures being taken to remedy the current noncompliance and prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

a. Conditions that necessitate a major modification of a permit are described in 40 CFR section 122.62, including, but not limited to:

i. If new or amended applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, this permit may be reopened and modified in accordance with the new or amended standards.

ii. When new information, that was not available at the time of permit issuance, would have justified different permit conditions at the time of issuance.

b. 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.

c. **Mercury.** If mercury is found to be causing toxicity based on acute or chronic toxicity test results, or if a TMDL program is adopted, this Order shall be reopened, and the mass effluent limitation modified (higher or lower) or an effluent concentration limitation imposed. If the Central Valley Water Board determines that a mercury offset program is feasible for Dischargers subject to a NPDES permit, then this Order may be reopened to reevaluate the mercury mass loading limitation(s) and the need for a mercury offset program for the Discharger.

d. **Water Effects Ratios (WER) and Metal Translators.** A default WER of 1.0 has been used in this Order for calculating criteria for applicable inorganic constituents. In addition, default dissolved-to-total metal translators have been used to convert water quality objectives from

dissolved to total. If the Discharger performs studies to determine site-specific WERs and/or site-specific dissolved-to-total metal translators, this Order may be reopened to modify the effluent limitations for the applicable inorganic constituents.

e. **Constituent Study.** If after review of the study results it is determined that the discharge has reasonable potential to cause or contribute to an exceedance of a water quality objective this Order may be reopened and effluent limitations added for the subject constituents.

f. **Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS).** On 17 January 2020, certain Basin Plan Amendments to incorporate new strategies for addressing ongoing salt and nitrate accumulation in the Central Valley became effective. Other provisions subject to U.S. EPA approval became effective on 2 November 2020, when approved by U.S. EPA. As the Central Valley Water Board moves forward to implement those provisions that are now in effect, this Order may be amended or modified to incorporate new or modified requirements necessary for implementation of the Basin Plan Amendments. More information regarding these Amendments can be found on the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) web page: (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/)

g. **Whole Effluent Toxicity.**

i. This Order may be reopened for modification to revise the aquatic toxicity provisions if the Supreme Court determines that the test of significant toxicity cannot be used in NPDES permits and the State Water Board suspends or revises the aquatic toxicity water quality standards.

ii. If after review of new data and information, it is determined that the discharge has reasonable potential to cause or contribute to an instream exceedance of the Statewide Toxicity Provisions' numeric chronic aquatic toxicity objective and Basin Plan's narrative toxicity objective this Order may be reopened and effluent limitations added for acute and/or chronic toxicity.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Toxicity Reduction Evaluation (TRE) Requirements.**

i. **TRE:** The Discharger is required to conduct a TRE, as detailed in the Monitoring and Reporting Program (Attachment E, Section V.H), when any combination of two or more **MDEL or MMEL** violations

occur within a single toxicity calendar month or within two successive toxicity 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) or if there is no effluent available to complete a routine monitoring test or **MMEL** compliance test, the Executive Officer may require a TRE.

b. **Thermal Impacts Associated with Discharge to Outfall 008 or 009.** The Discharger shall conduct a thermal impact study at Outfall 008 to American River at Natomas Stilling Basin and Outfall 009 at Alder Creek to demonstrate that the discharge will not cause adverse thermal impacts on the receiving waters, including a mixing zone study, and an assessment of the potential impacts to the Nimbus and American River fish hatchery. The study must demonstrate that the discharge will meet the Water Quality Objectives for temperature found in the Basin Plan. Those objectives state "the natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not affect beneficial uses."

3. Best Management Practices and Pollution Prevention

a. **2,3,7,8-TCDD and Other Dioxin and Furan Congeners Source Evaluation and Minimization Plan.** The Discharger shall prepare a 2,3,7,8-TCDD and other dioxin and furan congeners evaluation and minimization plan to address sources of detectable dioxins (1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin at Discharge Point 001 and 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin, 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin, 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin, 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin, and 1,2,3,7,8-Pentachlorodibenzo-p-dioxin at Discharge Point 002) and furans (1,2,3,4,7,8-Hexachlorodibenzofuran, 1,2,3,7,8,9-Hexachlorodibenzofuran, 2,3,4,6,7,8-Hexachlorodibenzofuran at Discharge Point 001 and 1,2,3,4,6,7,8-Heptachlorodibenzofuran, 1,2,3,4,7,8,9-Heptachlorodibenzofuran, 1,2,3,4,7,8-Hexachlorodibenzofuran, 1,2,3,6,7,8-Hexachlorodibenzofuran, 1,2,3,7,8,9-Hexachlorodibenzofuran, 1,2,3,7,8-Pentachlorodibenzofuran, 2,3,4,6,7,8-Hexachlorodibenzofuran, 2,3,4,7,8-Pentachlorodibenzofuran at Discharge Point 002) from the ARGET and GET EF facilities. The plan shall be completed and submitted to the Central Valley Water Board by the due date in the Technical Reports Table E-26 of this Order for review and approval by the Executive Officer.

4. Construction, Operation and Maintenance Specifications

a. **Operations and Maintenance Plan. Within 60-days of startup of a GET**, the Discharger shall certify in writing to the Regional Water Board that it

has developed an Operation and Maintenance Plan (O&M) for that GET. O&M plans have already developed for GET EF, ARGET, GET HA and GET J, GET KA, GET LA, GET LB, Sailor Bar Park GET, and WRND GET under previous versions of the permit. The Discharger shall develop and implement the O&M plan to prevent or minimize the generation and discharge of wastes and pollutants to the waters of the United States and waters of the State. The Discharger shall develop and implement an O&M plan consistent with the following objectives:

i. Maintain in-system production and wastewater treatment technologies to prevent the overflow of any floating matter or bypassing of treatment technologies.

ii. Inspect the treatment systems on a routine basis in order to identify and promptly repair any damage.

iii. Ensure storage and containment of chemicals or other materials to prevent spillage or release into waters of the United States, or waters of the State.

iv. Implement procedures for properly containing, cleaning, and disposing of any spilled material.

v. Assure that back power is available and working as required in section VI.A.2.i of this Order

vi. Keeping records documenting the frequency of cleaning, inspections, maintenance, and repairs.

vii. Adequately training all relevant facility personnel in spill prevention and how to respond in the event of a spill in order to ensure the proper clean-up and disposal of spilled material.

viii. Training staff on the proper operation and cleaning of production and wastewater treatment systems, including training in feeding procedures and proper use of equipment.

ix. The Discharger shall design individual treatment components and operate the treatment units according to best standard practices to meet the following effluent goals:

Table 19. Effluent Goals

Treatment Type	Parameter	Units	Average Monthly	Maximum Daily
Volatile Organic Treatment	1,1-Dichloroethane	µg/L	0.5	0.7
Volatile Organic Treatment	1,1-Dichloroethylene	µg/L	0.5	0.7
Volatile Organic Treatment	1,2-Dichloroethane	µg/L	0.38	0.5
1,4-Dioxane Treatment	1,4-dioxane	µg/L	1.0	2.0

Treatment Type	Parameter	Units	Average Monthly	Maximum Daily
Volatile Organic Treatment	Chloroform	µg/L	0.5	0.7
Volatile Organic Treatment	cis-1,2-dichloroethylene	µg/L	0.5	0.7
Volatile Organic Treatment	Freon-113	µg/L	0.5	0.7
N-Nitrosodimethylamine Treatment	N-Nitrosodimethylamine	µg/L	0.002	0.010
Perchlorate Treatment	Perchlorate	µg/L	4	6
Volatile Organic Treatment	Tetrachloroethylene	µg/L	0.5	0.7
Volatile Organic Treatment	Trichloroethylene	µg/L	0.5	0.7

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

6. Other Special Provisions

a. The Discharger will be reporting results for all constituents from the analysis for volatile organics using EPA Method 8260B Short List under Attachment E section III.A.5 of this Order. The Discharger shall include in their cover letter a list of all positively identified constituents detected in the influent and effluent of the treatment system that do not have a specific effluent limitation. If any positively identified constituent has been found present in the effluent at a concentration above the Practical Quantitation Level during consecutive sampling periods, or more than three times in a twelve month period, the Discharger shall notify Regional Board staff and prepare an evaluation of the source of the pollutant and potential treatment options. If the constituent is found in the influent, then the permit may be reopened and an effluent limitation established for that pollutant.

b. **Request for Discharge to Outfalls 008 and 009.** The Discharger plans to discharge treated groundwater from various GETs to Outfall 008 to American River at Natomas Stilling Basin and Outfall 009 to Alder Creek pending the results of a thermal impact study outlined in section VI.C.2.b. Before initiating discharge at Outfalls 008 and 009, the Discharger shall provide the results of the thermal impact study and submit a request for surface water discharge the American River via Outfall 008 and Alder Creek via Outfall 009, which demonstrates compliance with the requirements of sections IV.A. The surface water discharge is prohibited until compliance with this provision at which point the permit will be reopened and modified per Reopener Provision VI.C.1.a.ii.

c. **Request to Discharge from Outfall 010.** The Discharger plans to commence discharging from Outfall 010 to Morrison Creek from Discharge Point 017 for the WRND GET facility once the low-watt ultraviolet (UV) treatment system for NDMA removal is installed at the facility. Before initiating discharge to Outfall 010, the Discharger shall provide certification to the Central Valley Water Board that installation of the low-watt UV treatment system is complete by the design engineer. The certification of completion submitted by the Discharger shall certify that the discharges from Discharge Point 017 can meet the requirements of section IV.A.1 and IV.A.18.

7. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

A. Maximum Daily Design Flow Prohibition (section III.E). Compliance with the maximum daily design flow discharge prohibition will be determined based on the maximum daily flow discharged from each discharge point listed in Table 4 of this Order.

B. Volatile Organic Compounds (VOCs) Average Monthly Effluent Limitation (section IV.A). VOCs include all constituents listed in U.S. EPA Method 8260B Short List (Attachment E section III.A.5). The average monthly effluent limitation of less than 0.5 µg/L applies to each VOCs. When calculating the average monthly of each VOC, non-detect results shall be counted as one-half the detection level.

C. Calendar Annual Average Limitations (section IV.A). For constituents with effluent limitations specified as “calendar annual average” (acetaldehyde) the annual average shall be calculated as the average of the samples gathered for the calendar year. When calculating the annual average, non-detect results shall be counted as one-half the detection level.

D. Priority Pollutant Effluent Limitations. Compliance with effluent limitations for priority pollutants shall be determined in accordance with section 2.4.5 of the SIP, as follows:

1. Dischargers shall be deemed out of compliance with an effluent limitation 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).

2. Dischargers shall be required to conduct a Pollutant Minimization Program (PMP) in accordance with section 2.4.5.1 of the SIP when there is evidence that the priority pollutant is present in the effluent above an effluent limitation and either:

   a. sample result is reported as detected, but not quantified (DNQ) and the effluent limitation is less than the RL; or

b. sample result is reported as non-detect (ND) and the effluent limitation is less than the method detection limit (MDL).

3. When determining compliance with an average monthly effluent limitation (AMEL) and more than one sample result is available in a month, the discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or ND. In those cases, the discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

   a. The data set shall be ranked from low to high, 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.

4. If a sample result, or the arithmetic mean or median of multiple sample results, is below the RL, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the discharger conducts a PMP (as described in section 2.4.5.1), the discharger shall **not** be deemed out of compliance.

E. Whole Effluent Toxicity Effluent Limitations. The discharge is subject to determination of “Pass” or “Fail” from acute and chronic whole effluent toxicity tests 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 and Table A-1 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1.

The null hypothesis (Ho) for the TST statistical approach is:

Mean discharge Instream Waste Concentration (IWC) response ≤ Regulatory Management Decision (RMD) x Mean control response, where the chronic RMD = 0.75 and the acute RMD = 0.80.

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:

Percent Effect = ((Mean control response – Mean discharge IWC response) / Mean control response) x 100.

This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations, 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 differs from the control, the test result is "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.

1. **Acute Whole Effluent Toxicity MDEL (section IV.A.1.b).** If the result of a routine Pimephales promelas acute whole effluent toxicity test, using the TST statistical approach, is a "Fail" at the IWC for the sublethal endpoint measured in the test and the percent effect for the survival endpoint is greater than or equal to 50 percent, the Discharger will be deemed out of compliance with the MDEL.

2. **Acute Whole Effluent Toxicity MMEL (section IV.A.1.c).** If a routine Pimephales promelas acute whole effluent toxicity test and at least one Pimephales promelas acute toxicity MMEL compliance test conducted within the same toxicity calendar month result in a "Fail" at the IWC, using the TST statistical approach, the Discharger will be deemed out of compliance with the MMEL.

3. **Chronic Whole Effluent Toxicity MDEL (section IV.A.1.d).** If the result of a routine Ceriodaphnia dubia chronic whole effluent toxicity test, using the TST statistical approach, is a "Fail" at the IWC for the sublethal endpoint measured in the test and the percent effect for the survival endpoint is greater than or equal to 50 percent, the Discharger will be deemed out of compliance with the MDEL.

4. **Chronic Whole Effluent Toxicity MMEL (section IV.A.1.e).** If a routine Ceriodaphnia dubia chronic whole effluent toxicity test and at least one Ceriodaphnia dubia chronic toxicity MMEL compliance test conducted within the same toxicity calendar month result in a "Fail" at the IWC, using the TST statistical approach, the Discharger will be deemed out of compliance with the MMEL.

ATTACHMENT A – DEFINITIONS

Acute Aquatic Toxicity Test
A test to determine an adverse effect (usually lethality) on a group of aquatic test organisms during a short-term exposure (e.g., 24, 48, or 96 hours).

Alternative Hypothesis
A statement used to propose a statistically significant relationship in a set of given observations. Under the TST approach, when the Null Hypothesis is rejected, the Alternative Hypothesis is accepted in its place, indicating a relationship between variables and an acceptable level of toxicity.

Annual Average Effluent Limitation (AAEL)
The highest allowable average of daily discharges over a calendar year (1 January through 31 December), calculated as a sum of all daily discharges measured during a calendar year divided by the number of daily discharges measured during that year.

Arithmetic Mean (μ)
Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$

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

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

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

Best Management Practices (BMPs)
Methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and nonpoint source discharges including storm water. BMPs include structural and non-structural controls, and operation 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.

Calendar Month

A period of time from of the first of a month to the last day of the month (e.g., from January 1 to January 31, from April 1 to April 30, or from December 1 to December 31).**Calendar Quarter**
A period of time defined as three consecutive calendar months (e.g., from January 1 to March 31, from April 1 to June 30, or from October 1 to December 31).

Calendar Year
A period of time defined as twelve consecutive calendar months (i.e., January 1 to December 31).

Chronic Aquatic Toxicity Test
A test to determine an adverse effect (sub-lethal or lethal) on a group of aquatic test organisms during an exposure of duration long enough to assess sub-lethal effects.

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.

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

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

Endpoint
An effect that is measured in a toxicity study. Endpoints in toxicity tests may include, but are not limited to survival, reproduction, and growth. A measured response of a receptor to a stressor. An endpoint can be measured in a toxicity test or field survey.

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.

Facility
Facility or activity means any NPDES "point source" or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

Harmonic Mean
Harmonic mean flows are expressed as $Q_{hm} = (n)/(\Sigma^{n}_{i=1}\ 1/x_i)$, where x_i = specific data values and n = number of data values.

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).

Instream Waste Concentration (IWC)
The concentration of effluent in the receiving water after mixing.

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.

Maximum Daily Flow
The maximum flow sample of all samples collected in a calendar day.

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

Method Detection Limit (MDL)
MDL is the minimum measured 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 in 40 C.F.R. Part 136, Attachment B.

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.

Null Hypothesis
A statement used in statistical testing that has been put forward either because it is believed to be true or because it is to be used as a basis for argument, but has not been proved.

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.

Percent Effect
The percent effect at the instream waste concentration (IWC) shall be calculated using untransformed data and the following equation:

$$\text{Percent Effect of the Sample} = \frac{\text{Mean Control Response} - \text{Mean Sample Response}}{\text{Mean Control Response}} \cdot 100$$

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

Point Source
Point source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

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 Central Valley 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 Central Valley Water Board.

Regulatory Management Decision (RMD)
The decision that represents the maximum allowable error rates and thresholds for toxicity and non-toxicity that would result in an acceptable risk to aquatic life.

Response
A measured biological effect (e.g., survival, reproduction, growth) as a result of exposure to a stimulus.

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

Species Sensitivity Screening
An analysis to determine the single most sensitive species from an array of test species to be used in a single species laboratory test series.

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

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

where:

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

Statewide Toxicity Provisions

The Statewide Toxicity Provisions became effective on 25 April 2022 and include statewide numeric water quality objectives for both acute and chronic toxicity and a program of implementation to control toxicity. Statistical Threshold Value (STV)
The STV for the bacteria receiving water limitation is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population.

Test of Significant Toxicity (TST)
A statistical approach used to analyze aquatic toxicity test data, as 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 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1.

Toxicity Reduction Evaluation (TRE)
TRE is a study conducted in a stepwise 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.).

Water-Effect Ratio (WER)
An appropriate measure of the toxicity of a material obtained in a site water divided by the same measure of the toxicity of the same material obtained simultaneously in a laboratory dilution water.

WET Maximum Daily Effluent Limitation (MDEL)
For the purposes of chronic and acute aquatic toxicity, an MDEL is an effluent limitation based on the outcome of the TST approach and the resulting percent effect at the IWC.

WET Median Monthly Effluent Limit (MMEL)
For the purposes of chronic and acute aquatic toxicity, an MMEL is an effluent limitation based on a maximum of three independent toxicity tests analyzed using the TST approach during a toxicity calendar month.

WET Maximum Daily Effluent Target (MDET)
For the purposes of chronic aquatic toxicity, an MDET is a target used to determine whether a Toxicity Reduction Evaluation (TRE) should be conducted. Not meeting the MDET is not a violation of an effluent limitation.

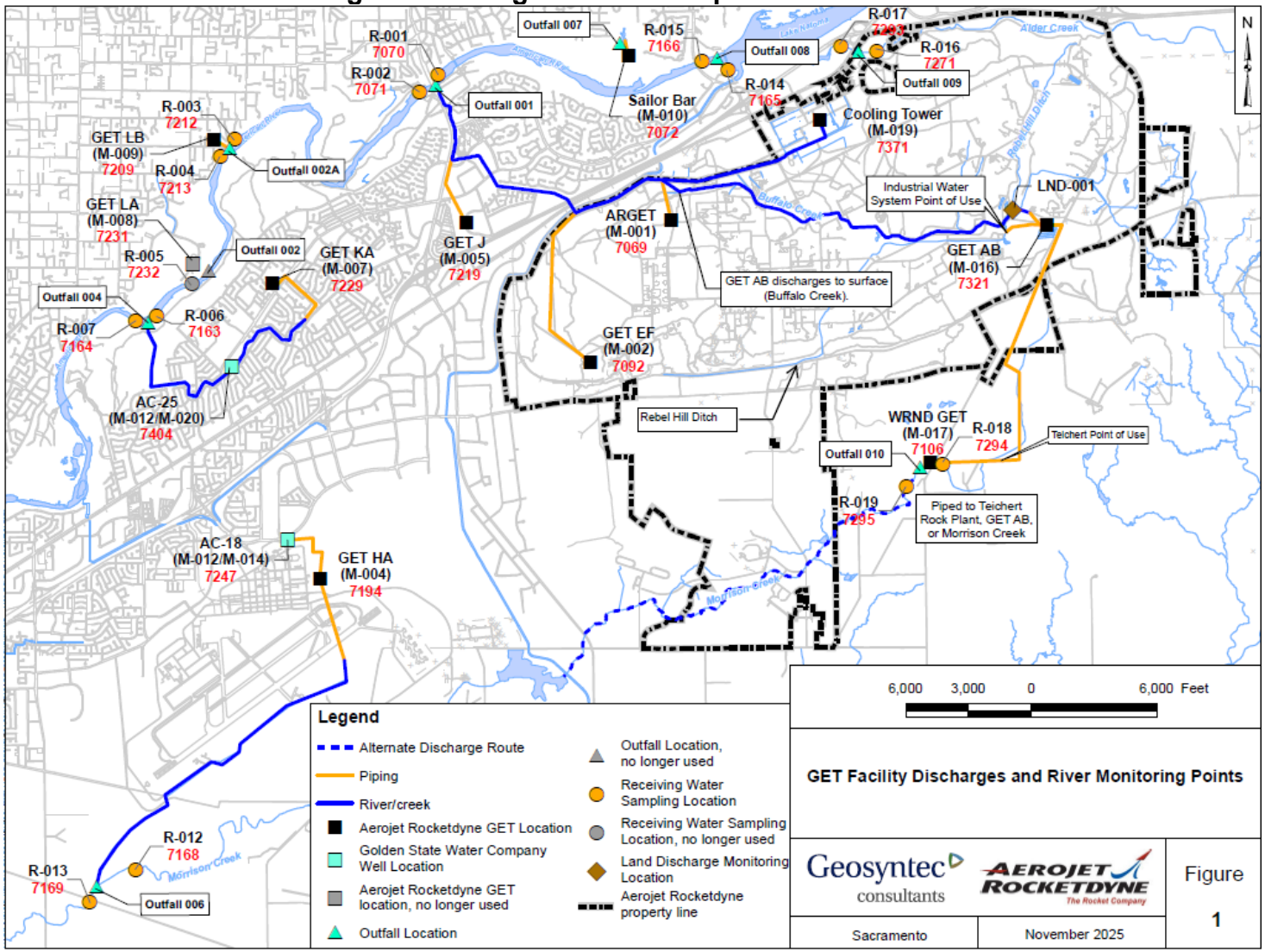
WET Median Monthly Effluent Target (MMET)
For the purposes of chronic aquatic toxicity, an MMET is a target based on a maximum of three independent toxicity tests used to determine whether a TRE should be conducted. Not meeting the MMET is not a violation of an effluent limitation.

WET MMEL Compliance Tests
For the purposes of chronic and acute aquatic toxicity, a maximum of two tests that are used in addition to the routine monitoring test to determine compliance with the chronic and acute aquatic toxicity MMEL.

WET MMET Tests
For the purposes of chronic aquatic toxicity, for dischargers not required to comply with numeric chronic toxicity effluent limitations, MMET Tests are a maximum of two tests that are used in addition to the routine monitoring test to determine whether a TRE should be conducted.

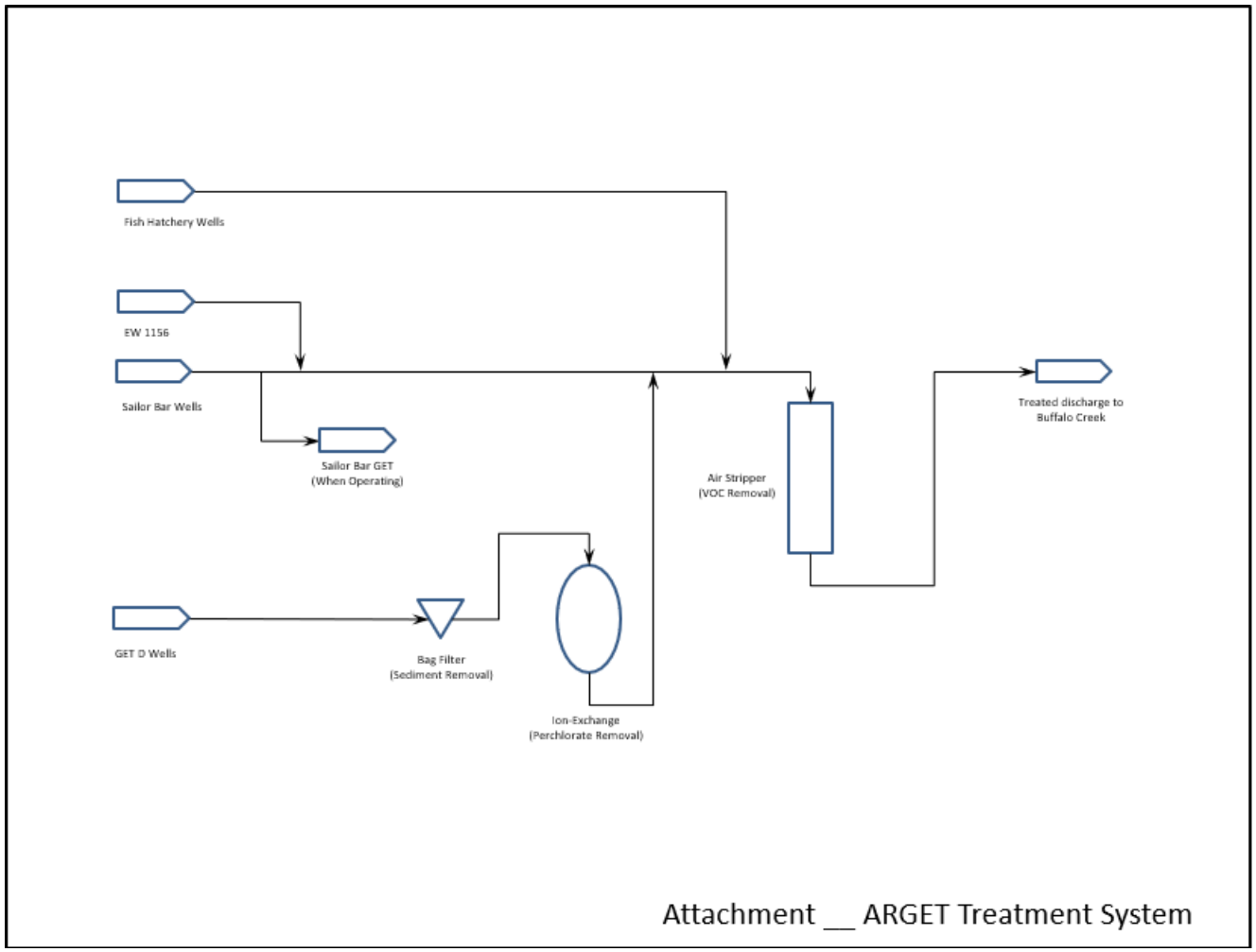
ATTACHMENT B – MAP

Figure B-1. GET Facilities and Discharge Monitoring Locations Map

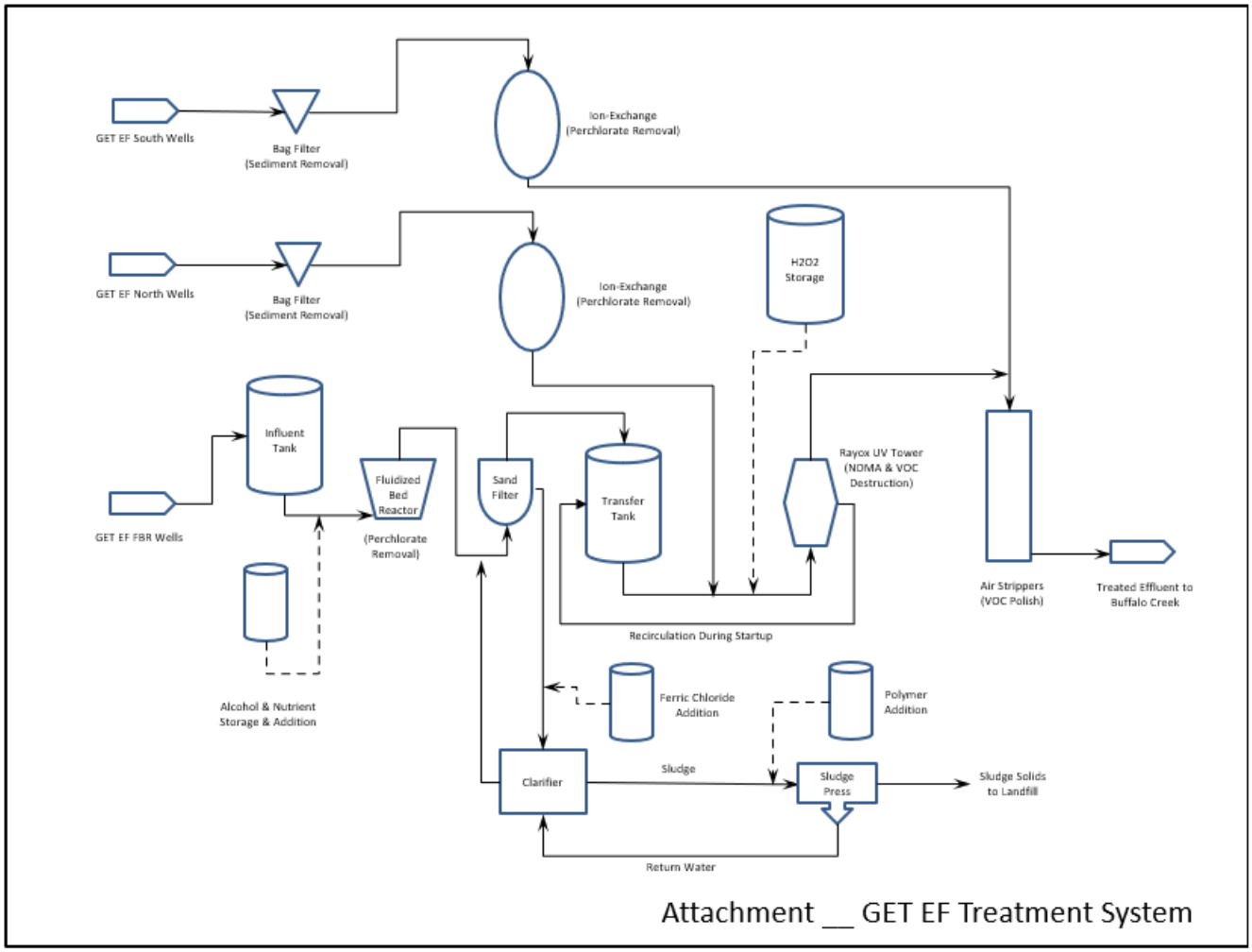


ATTACHMENT C – FLOW SCHEMATIC

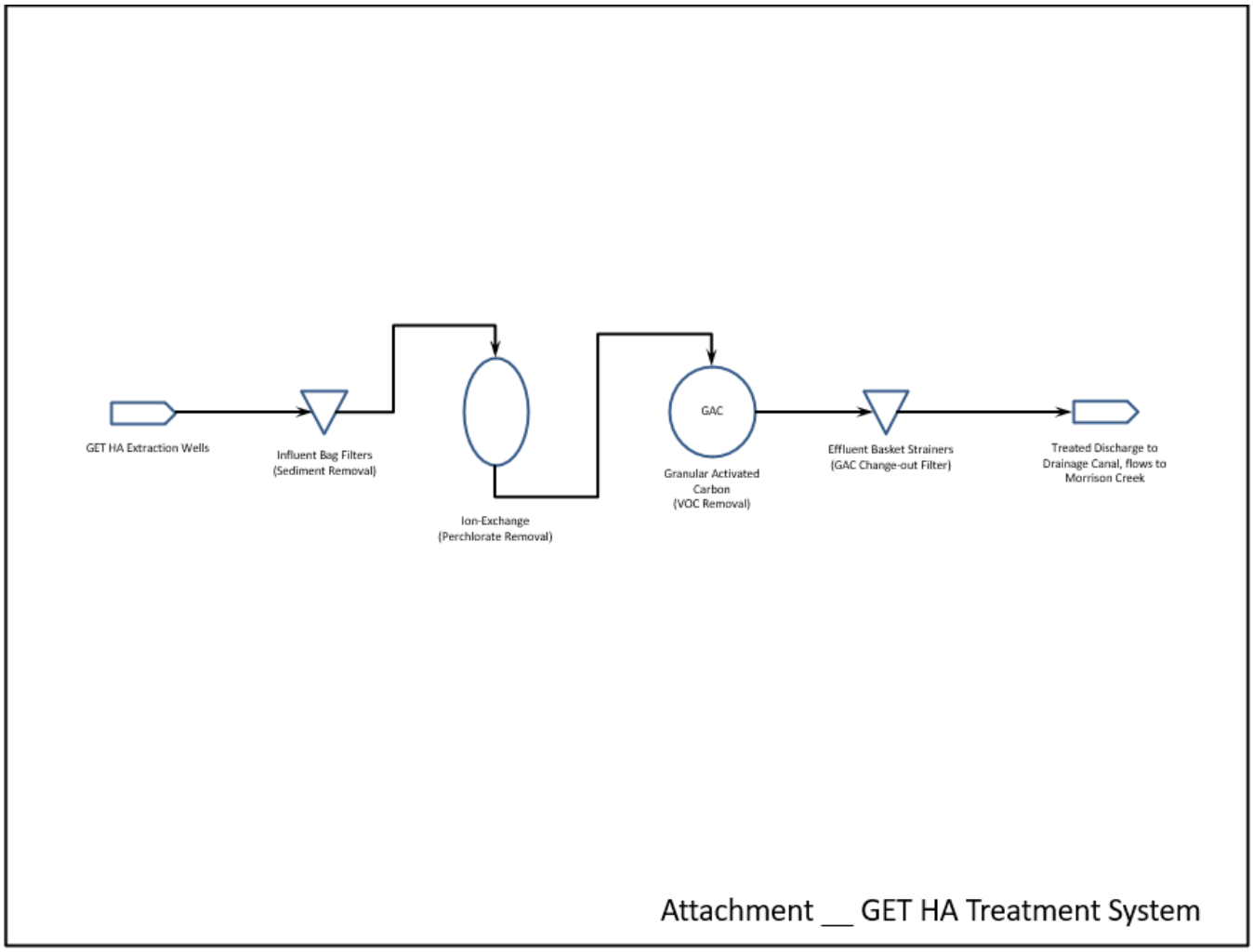
ATTACHMENT C-1. ARGET TREATMENT SYSTEM



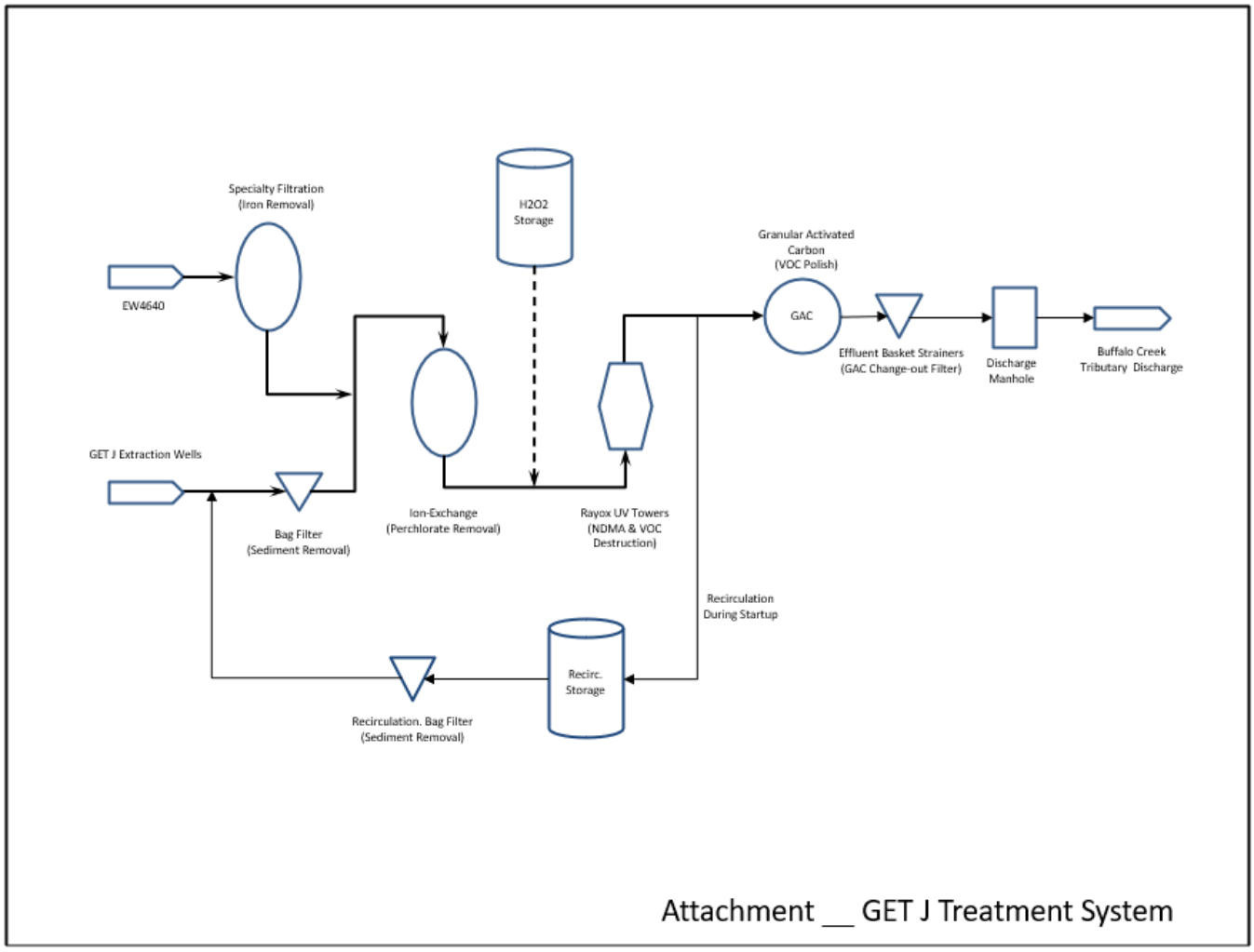
ATTACHMENT C-2. GET EF TREATMENT SYSTEM



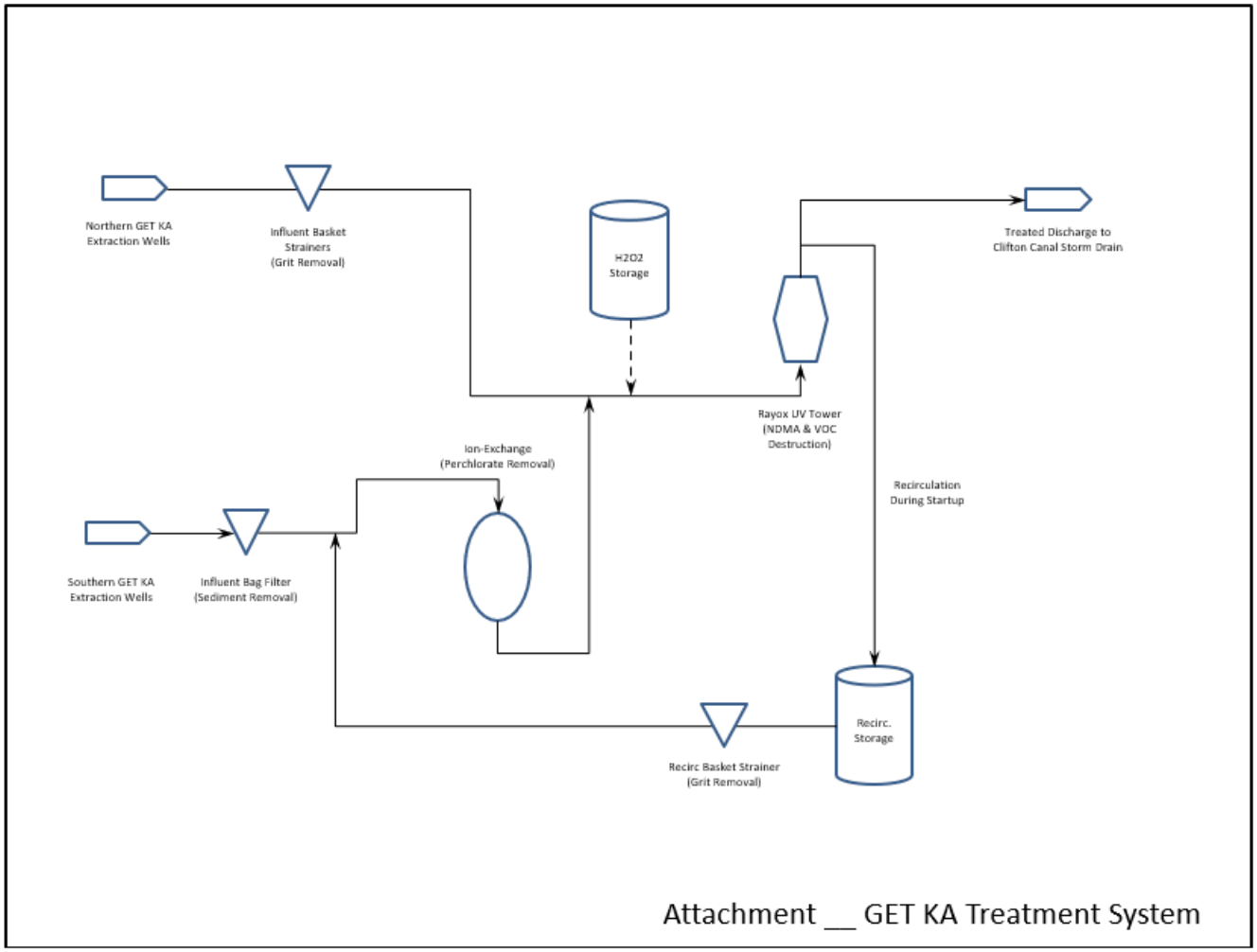
ATTACHMENT C-3. GET HA TREATMENT SYSTEM



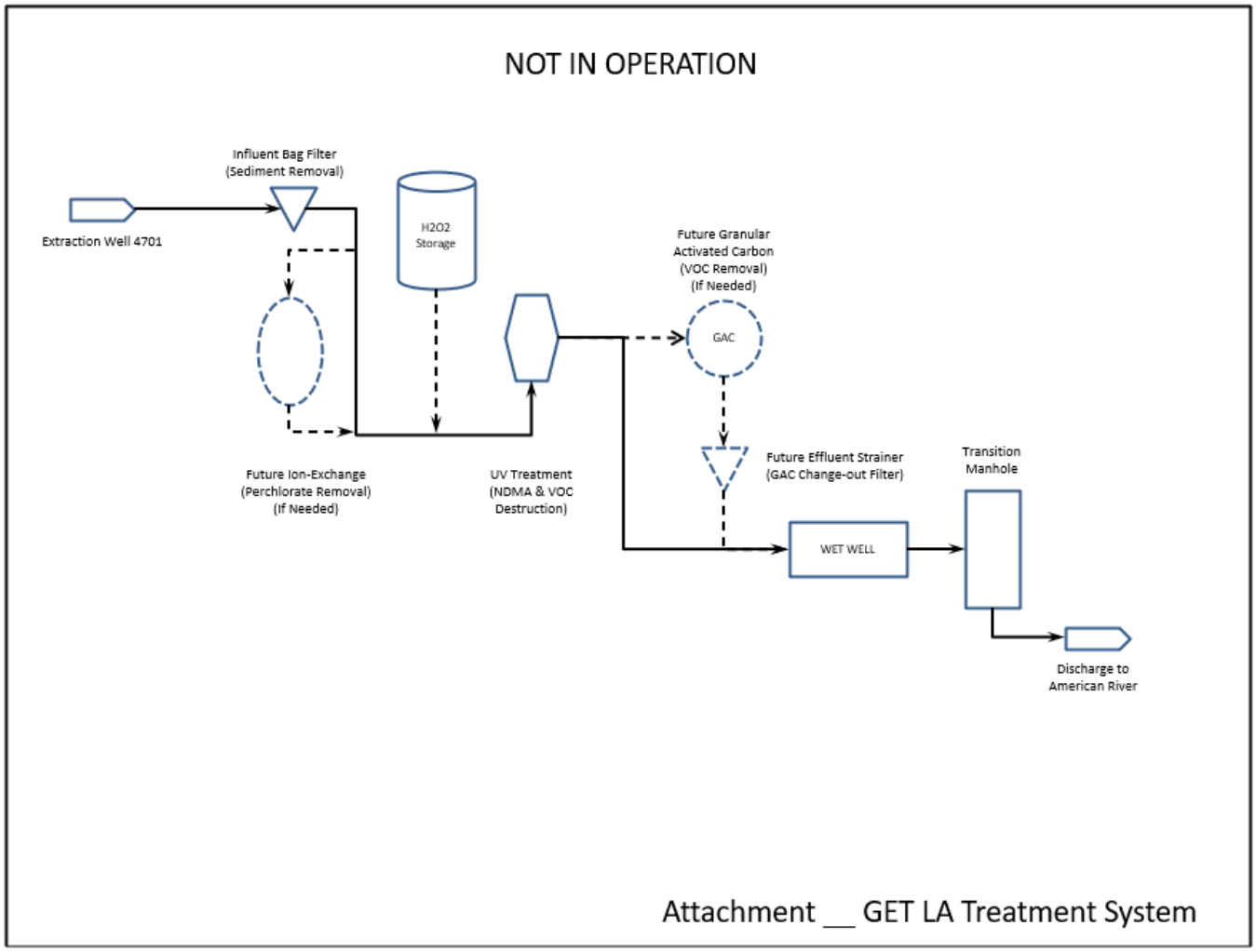
ATTACHMENT C-4. GET J TREATMENT SYSTEM



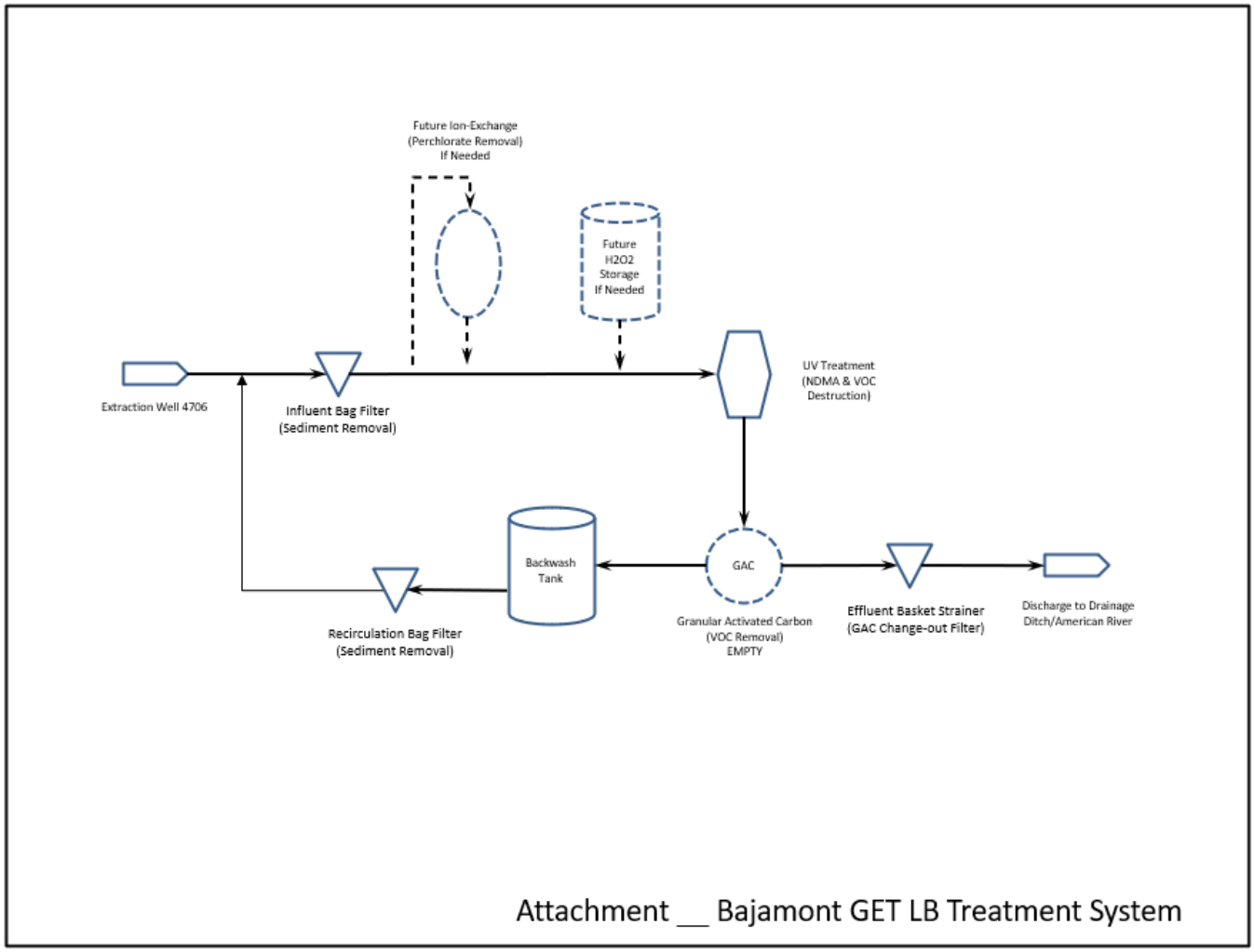
ATTACHMENT C-5. GET KA TREATMENT SYSTEM



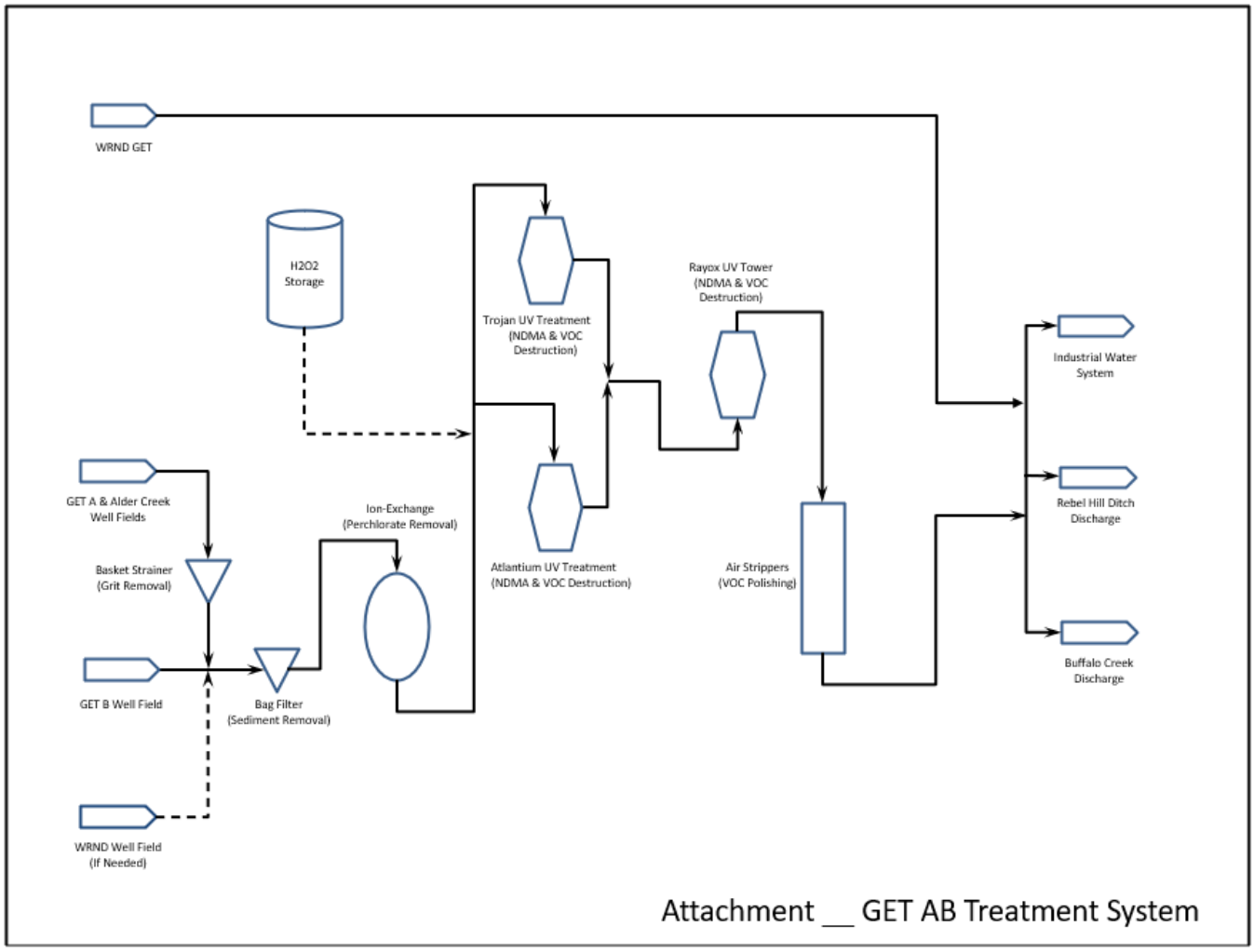
ATTACHMENT C-6. GET LA TREATMENT SYSTEM



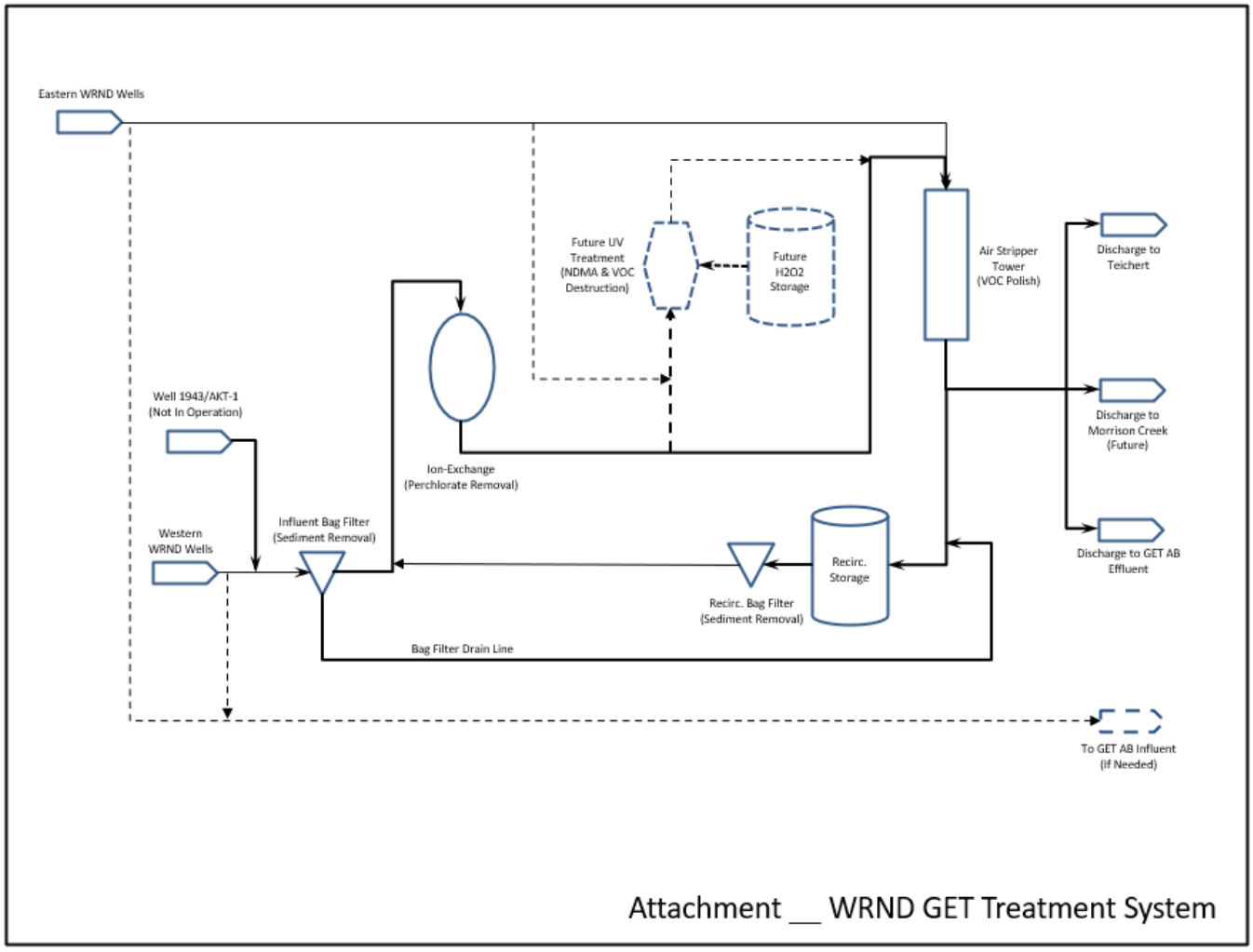
ATTACHEMNT C-7. GET LB TREATMENT SYSTEM



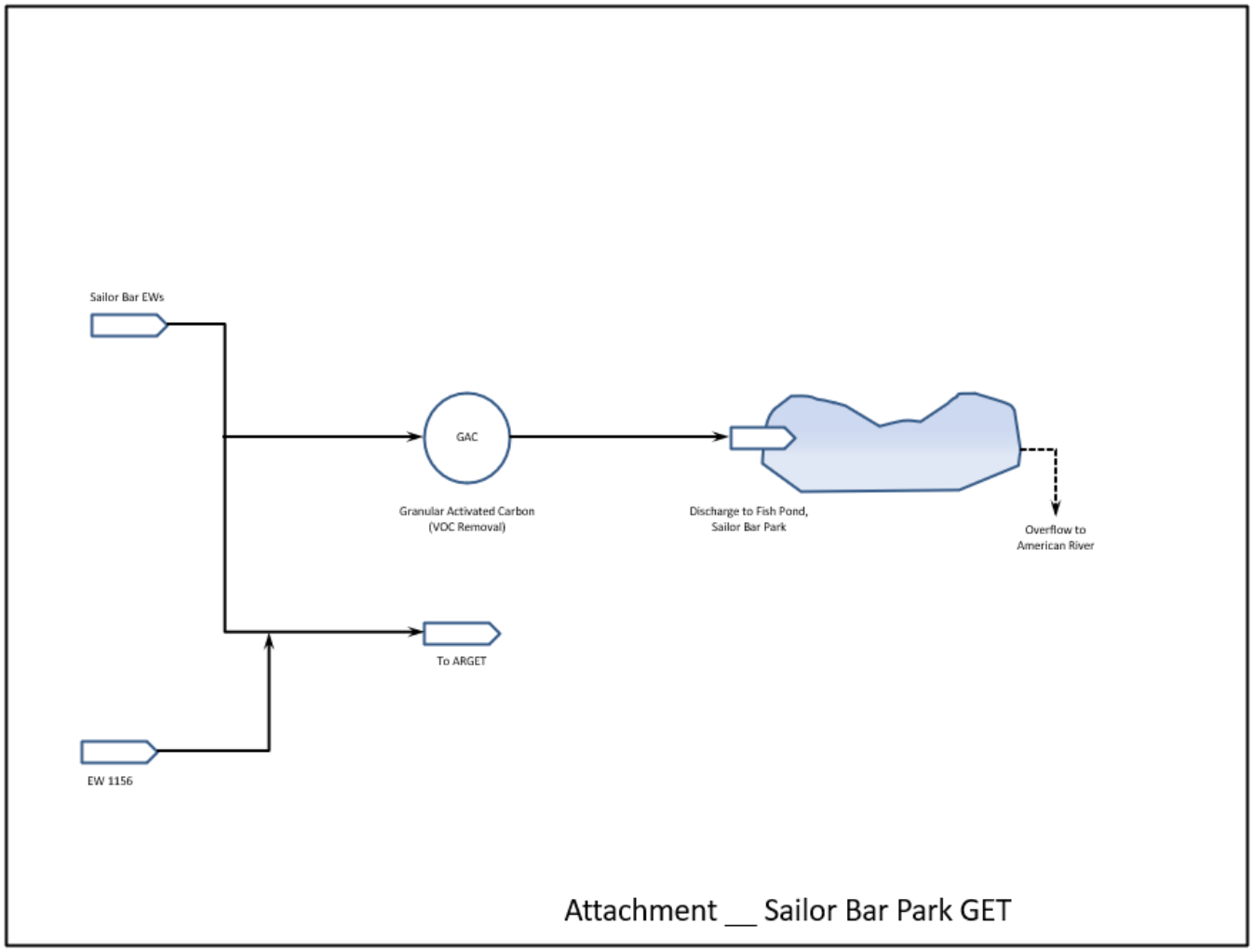
ATTACHMENT C-8. GET AB TREATMENT SYSTEM



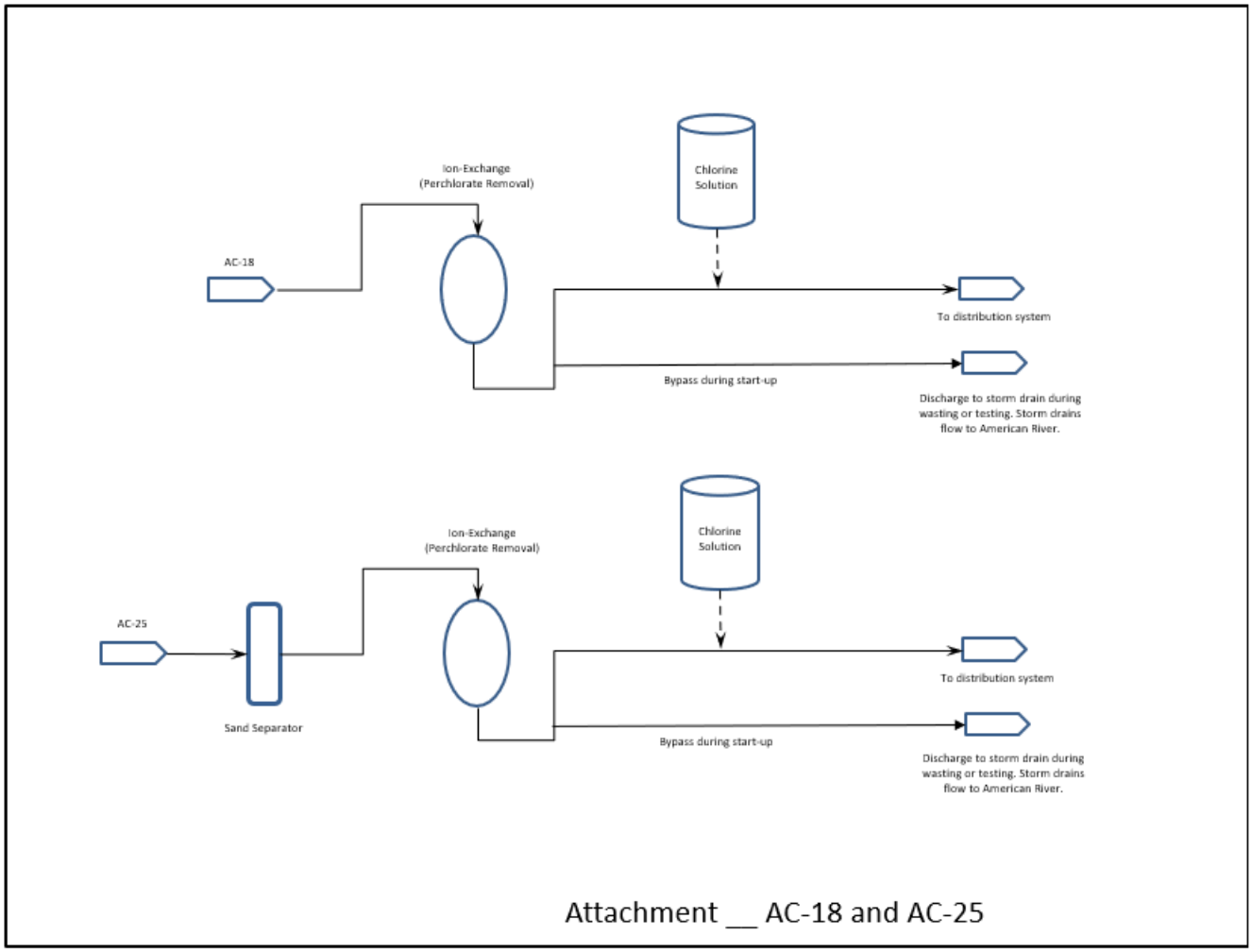
ATTACHMENT C-9. WRND GET



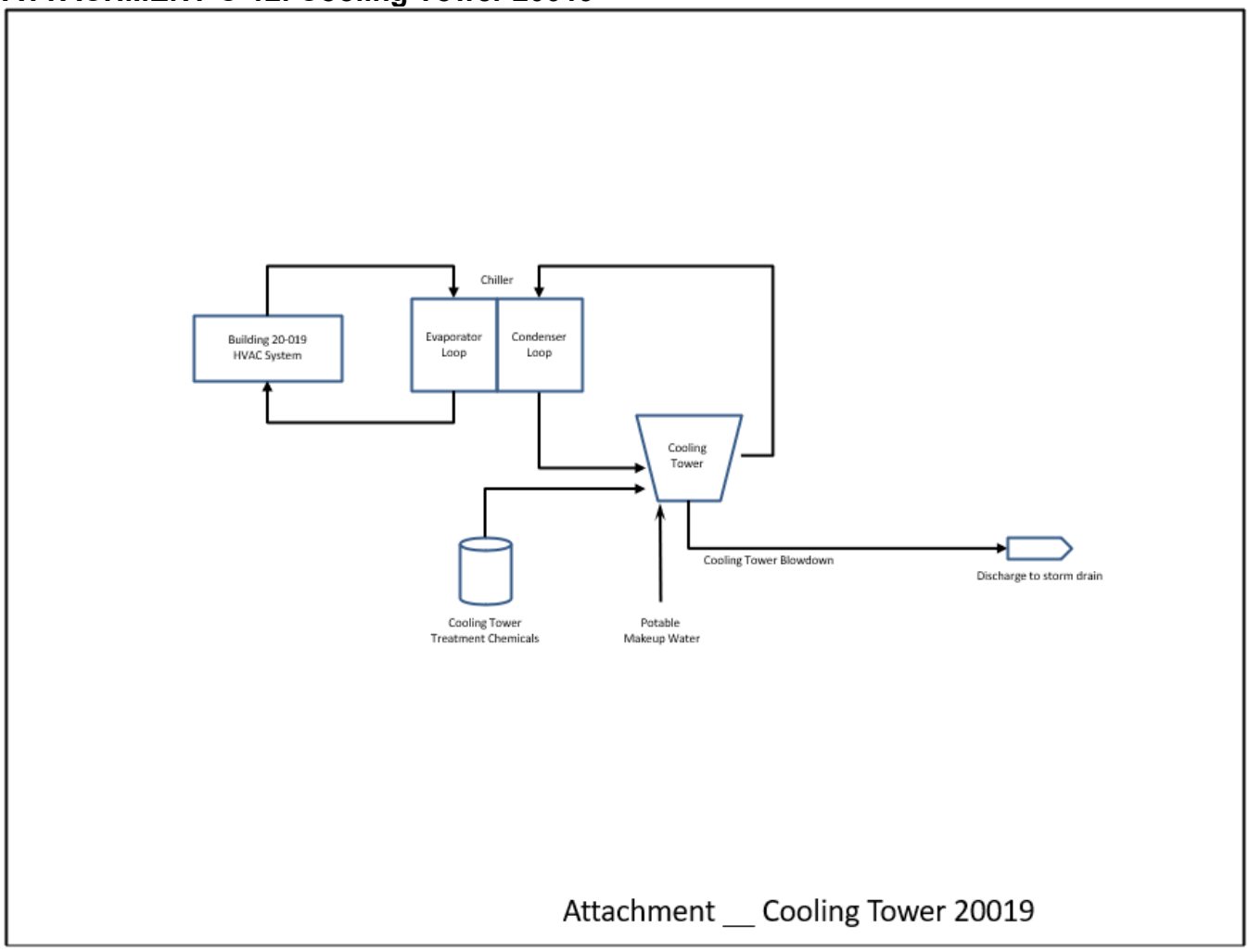
ATTACHMENT C-10. Sailor Bar Park GET



ATTACHMENT C-11. AC-18 and AC-25



ATTACHMENT C-12. Cooling Tower 20019



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply:

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 C.F.R. section 122.41(a); Wat. Code, sections 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. section 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. section 122.41(c).)

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes having adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. section 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. section 122.41(g).)

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. section 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Central Valley 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. section 1318(a)(4)(B); 40 C.F.R. section 122.41(i); Wat. Code, section 13267, 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C section 1318(a)(4)(B)(ii); 40 C.F.R. section 122.41(i)(1); Wat. Code, sections 13267, 13383);

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. section 1318(a)(4)(B)(ii); 40 C.F.R. section 122.41(i)(2); Wat. Code, sections 13267, 13383);

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C section 1318(a)(4)(B)(ii); 40 C.F.R. section 122.41(i)(3); Wat. Code, section 13267, 13383); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C section 1318(a)(4)(B); 40 C.F.R. section 122.41(i)(4); Wat. Code, sections 13267, 13383.)

G. Bypass

1. Definitions

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

   b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. section 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. section 122.41(m)(2).)

3. Prohibition of bypass. Bypass is prohibited, and the Central Valley Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. section 122.41(m)(4)(i)):

    a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. section 122.41(m)(4)(i)(A));

    b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. section 122.41(m)(4)(i)(B)); and

    c. The Discharger submitted notice to the Central Valley Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. section 122.41(m)(4)(i)(C).)

4. The Central Valley Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Valley Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. section 122.41(m)(4)(ii).)

5. **Notice**

    a. **Anticipated bypass.** If the Discharger knows in advance of the need for a bypass, it shall submit prior notice if possible, at least 10 days before the date of the bypass. The notice shall be sent to the Central Valley Water Board. As of 21 December 2023, all notices shall be submitted electronically to the initial recipient (State Water Board's California Integrated Water Quality System (CIWQS) Program website (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/), defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. Part 3, section 122.22, and 40 C.F.R. Part 127. (40 C.F.R. section 122.41(m)(3)(i).)

    b. **Unanticipated bypass.** The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). The notice shall be sent to the Central Valley Water Board. As of 21 December 2023, all notices shall be submitted

electronically to the initial recipient (State Water Board's California Integrated Water Quality System (CIWQS) Program website. (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/), defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. Part 3, section 122.22, and 40 C.F.R. Part 127. (40 C.F.R. section 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. section 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. section 122.41(n)(2).)

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

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

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

    c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. section 122.41(n)(3)(iii)); and

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

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. section 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. section 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. section 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Central Valley Water Board. The Central Valley Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. section 122.41(l)(3); 122.61.)

III. STANDARD PROVISIONS – MONITORING

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

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

1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and;

    a. 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;

b. 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.

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

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Valley Water Board Executive Officer at any time. (40 C.F.R. section 122.41(j)(2).)

B. Records of monitoring information shall include:

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

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

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

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

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

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

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

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

2. Permit applications and attachments, permits and effluent data. (40 C.F.R. section 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Central Valley Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Central Valley 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 Central Valley Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. section 122.41(h); Wat. Code, sections 13267, 13383.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Central Valley Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 C.F.R. section 122.41(k).)

2. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. section 122.22(a)(1).)

3. All reports required by this Order and other information requested by the Central Valley Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

    a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. section 122.22(b)(1));

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

c. The written authorization is submitted to the Central Valley Water Board and State Water Board. (40 C.F.R. section 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Central Valley Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. section 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

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

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

C. Monitoring Reports

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

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

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Central Valley Water Board. (40 C.F.R. section 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. section 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. section 122.41(l)(5).)

E. Twenty-Four Hour Reporting

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

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

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

F. Planned Changes

The Discharger shall give notice to the Central Valley Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. section 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. section 122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. section 122.41(l)(1)(ii).)

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

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Central Valley Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order’s requirements. (40 C.F.R. section 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Central Valley

Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. section 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Central Valley Water Board**,** State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. section 122.41(l)(8).)

J. Initial Recipient for Electronic Reporting Data

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

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Central Valley Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13350, 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Central Valley Water Board as soon as they know or have reason to believe (40 C.F.R. section 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. section 122.42(a)(1)):

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

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

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

d. The level established by the Central Valley Water Board in accordance with section 122.44(f). (40 C.F.R. section 122.42(a)(1)(iv).)

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" (40 C.F.R. section 122.42(a)(2)):

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

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

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

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

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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Tables

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (40 C.F.R. section 122.48) requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 authorize the Central Valley Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring and reporting requirements that implement federal and California requirements.

I. GENERAL MONITORING PROVISIONS

A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the Central Valley Water Board.

B. Final effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.

C. Chemical, bacteriological, and bioassay analyses of any material required by this Order shall be conducted by a laboratory accredited for such analyses by the State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW; formerly the Department of Public Health), in accordance with the provision of Water Code section 13176. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. In the event an accredited laboratory is not available to the Discharger for any onsite field measurements such as pH, dissolved oxygen (DO), turbidity, and temperature, such analyses performed by a non-accredited laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program for any onsite field measurements such as pH, DO, turbidity, temperature, and residual chlorine must be kept onsite in the treatment facility laboratory and shall be available for inspection by Central Valley Water Board staff. The Discharger must demonstrate sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform these field measurements. The Quality Assurance-Quality Control Program must conform to U.S. EPA guidelines or to procedures approved by the Central Valley Water Board.

D. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their

continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.

F. Laboratory analytical methods shall be sufficiently sensitive in accordance with the Sufficiently Sensitive Methods Rule (SSM Rule) specified under 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv). A U.S. EPA-approved analytical method is sufficiently sensitive for a pollutant/parameter where:

1. The method minimum level (ML) is at or below the applicable water quality objective for the receiving water, or;

2. The method ML is above the applicable water quality objective for the receiving water but the amount of the pollutant/parameter in the discharge is high enough that the method detects and quantifies the level of the pollutant/parameter, or;

3. the method ML is above the applicable water quality objective for the receiving water, but the ML is the lowest of the 40 C.F.R. 136 U.S. EPA-approved analytical methods for the pollutant/parameter.

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

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

H. The Discharger shall file with the Central Valley Water Board technical reports on self-monitoring performed according to the detailed specifications contained in this Monitoring and Reporting Program.

II. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	M-INFA	A location where a representative sample of the influent into the ARGET facility can be collected prior to any plant return flows or treatment processes.
--	M-INFB	A location where a representative sample of the influent into the GET EF facility can be collected prior to any plant return flows or treatment processes.
--	M-INFD	A location where a representative sample of the influent into the GET HA facility can be collected prior to any plant return flows or treatment processes.
--	M-INFE	A location where a representative sample of the influent into the GET J facility can be collected prior to any plant return flows or treatment processes.
--	M-INFG	A location where a representative sample of the influent into the GET KA facility can be collected prior to any plant return flows or treatment processes.
--	M-INFH	A location where a representative sample of the influent into the GET LA facility can be collected prior to any plant return flows or treatment processes.
--	M-INFI	A location where a representative sample of the influent into the GET LB facility can be collected prior to any plant return flows or treatment processes.
--	M-INFJ	A location where a representative sample of the influent into the Sailor Bar Park GET facility can be collected prior to any plant return flows or treatment processes.
--	M-INFM	A location where a representative sample of the influent into the AC-18 Well System can be collected prior to any plant return flows or treatment processes.
--	M-INFO	A location where a representative sample of the influent into the GET AB facility can be collected prior to any plant return flows or treatment processes.
--	M-INFP	A location where a representative sample of the influent into the WRND GET facility can be collected prior to any plant return flows or treatment processes.
--	M-INFQ	A location where a representative sample of the influent into the AC-25 Well System can be collected prior to any plant return flows or treatment processes.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	M-001	A location where a representative sample of the effluent from the ARGET facility can be collected from the last connection through which wastes can be admitted to Discharge Point 001 and discharged at Outfall 001. Latitude: 38° 36' 56" N, Longitude: 121° 13' 45" W
002	M-002	A location where a representative sample of the effluent from the GET EF facility can be collected from the last connection through which wastes can be admitted to Discharge Point 002 and discharged at Outfall 001. Latitude: 38° 35' 51" N, Longitude: 121° 14' 39" W
004	M-004	A location where a representative sample of the effluent from the GET HA facility can be collected from the last connection through which wastes can be admitted to Discharge Point 004 and discharged at Outfall 006. Latitude: 38° 34' 7" N, Longitude: 121° 17' 20" W
005	M-005	A location where a representative sample of the effluent from the GET J facility can be collected from the last connection through which wastes can be admitted to Discharge Point 005 and discharged at Outfall 001. Latitude: 38° 36' 53" N, Longitude: 121° 15' 51" W
007	M-007	A location where a representative sample of the effluent from the GET KA facility can be collected from the last connection through which wastes can be admitted to Discharge Point 007 and discharged at Outfall 004. Latitude: 38° 36' 27" N, Longitude: 121° 17' 45" W
008	M-008	A location where a representative sample of the effluent from the GET LA facility can be collected from the last connection through which wastes can be admitted to Discharge Point 008 and discharged at Outfall 002. Latitude: 38° 36' 37" N, Longitude: 121° 18' 34" W
009	M-009	A location where a representative sample of the effluent from the GET LB facility can be collected from the last connection through which wastes can be admitted to Discharge Point 009 and discharged at Outfall 002A. Latitude: 38° 37' 35" N, Longitude: 121° 18' 17" W

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
010	M-010	A location where a representative sample of the effluent from the Sailor Bar Park GET facility can be collected from the last connection through which wastes can be admitted to Discharge Point 010 and discharged at Outfall 007. Latitude: 38° 38' 16" N, Longitude: 121° 14' 14" W
012	M-012	A location where a representative sample of the effluent from the Low Threat Discharges can be collected from the last connection through which wastes can be admitted to Discharge Point 012 and discharged to the storm drains.
014	M-014	A location where a representative sample of the effluent from the AC-18 Well System can be collected from the last connection through which wastes can be admitted to Discharge Point 014 and discharged at Outfall 006. Latitude: 38° 34' 28" N, Longitude: 121° 17' 37" W
016	M-016	A location where a representative sample of the effluent from the GET AB facility can be collected from the last connection through which wastes can be admitted to Discharge Point 016 and discharged at Outfall 001 or Outfall 010. Latitude: 38° 36' 52" N, Longitude: 121° 09' 60" W
017	M-017	A location where a representative sample of the effluent from the WRND GET facility can be collected from the last connection through which wastes can be admitted to Discharge Point 017 and discharged at Outfall 001. Latitude: 38° 34' 59" N, Longitude: 121° 11' 14" W
019	M-019	A location where a representative sample of the effluent from the Cooling Tower 20019 can be collected from the last connection through which wastes can be admitted to Discharge Point 019 and discharged at Outfall 001. Latitude: 38° 37' 37" N, Longitude: 121° 12' 15" W
020	M-020	A location where a representative sample of the effluent from the AC-25 Well System can be collected from the last connection through which wastes can be admitted to Discharge Point 020 and discharged at Outfall 004. Latitude: 38° 35' 48" N, Longitude: 121° 18' 12" W

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	R-001	R-001 is upstream of Outfall 001 on American River from discharge of Buffalo Creek into American River. Latitude 38º, 38', 00" N, Longitude 121º, 16', 07" W.
--	R-002	R-002 is downstream of Outfall 001 on American River from discharge of Buffalo Creek into American River. Latitude 38º, 38', 00" N, Longitude 121º, 16', 07" W
--	R-003	R-003 is upstream of Outfall 002A on the American River. Latitude 38º, 37', 31" N, Longitude 121º, 18', 13" W.
--	R-004	R-004 is downstream of Outfall 002A and upstream of Outfall 002 on the American River. Latitude 38º, 37', 31" N, Longitude 121º, 18', 13" W.
--	R-005	R-005 is downstream of Outfall 002 on the American River. Latitude 38º, 36', 29" N, Longitude 121º, 18', 33" W.
--	R-006	R-006 is upstream of Outfall 004 on the American River. Latitude 38º, 36', 07" N, Longitude 121º, 19', 02" W
--	R-007	R-007 is downstream of Outfall 004 on the American River. Latitude 38º, 36', 07" N, Longitude 121º, 19', 02" W
--	R-012	R-012 is upstream of Outfall 006 on Morrison Creek from discharge of a drainage ditch to Morrison Creek. Latitude 38º, 31', 53" N, Longitude 121º, 19', 36" W.
--	R-013	R-013 is downstream of Outfall 006 on Morrison Creek from discharge of drainage ditch to Morrison Creek. Latitude 38º, 31', 53" N, Longitude 121º, 19', 36" W.
--	R-014	R-014 is upstream of Outfall 008 on American River from a potential discharge from various GETs into American River via a pipeline. Latitude 38º, 38', 06" N, Longitude 121º, 13', 13" W.
--	R-015	R-015 is downstream of Outfall 008 on American River from a potential discharge from various GETs into American River via a pipeline. Latitude 38º, 38', 06" N, Longitude 121º, 13', 13" W
--	R-016	R-016 is upstream of Outfall 009 on Alder Creek from a potential discharge water from various GETs via a pipeline into Alder Creek at American River. Latitude 38º, 38', 12" N, Longitude 121º, 12', 11" W.
--	R-017	R-017 is downstream of Outfall 009 on Alder Creek from a potential discharge water from various GETs via a pipeline into Alder Creek at American River. Latitude 38º, 38', 12" N, Longitude 121º, 12', 11" W.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	R-018	R-018 is upstream of Outfall 010 on Morrison Creek. Latitude 38º, 34', 60" N, Longitude 121º, 10', 60" W.
--	R-019	R-019 is downstream of Outfall 010 on Morrison Creek. Latitude 38º, 34', 49" N, Longitude 121º, 11', 22" W.
--	LND-001	A location where a representative sample can be collected of the discharge from Discharge Point 016 at the GET AB facility and from Discharge Point 017 at the WRND GET facility to Rebel Hill Ditch. Latitude 38º, 36', 59.6" N, Longitude 121º, 10', 16" W.

Table E-1 Note:

1. The North latitude and West longitude information in Table E-1 are approximate for administrative purposes.

III. INFLUENT MONITORING REQUIREMENTS

A. General Monitoring and Testing Requirements

The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table E-2 through Table E-6:

1. **Applicable to all parameters.** Parameters shall be analyzed using the analytical methods described in 40 CFR part 136; or by methods approved by the Central Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 CFR part 136 allowed sample type.

2. **Grab Samples.** All grab samples shall **not** be collected at the same time each day to get a complete representation of variations in the influent.

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

4. **Priority Pollutants.** For all priority pollutant constituents listed in Table E-2 through Table E-6 the RL shall be consistent with sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP) and the SSM Rule specified under 40 C.F.R. sections 122.21(e)(3)and 122.44(i)(1)(iv).

5. **Volatile Organic Compounds.** Volatile organic compounds to be reported are those on the EPA Method 8260B Short List shown below.

    a. Acetone
    b. Benzene
    c. Bromoform
    d. Carbon tetrachloride
    e. Chlorobenzene
    f. Chloroform
    g. cis-1,2-Dichloroethene
    h. Dibromochloromethane
    i. Dichlorobromomethane
    j. 1,2-Dichlorobenzene
    k. 1,3-Dichlorobenzene
    l. 1,4-Dichlorobenzene
    m. Dichlorodifluoromethane
    n. 1,1-Dichloroethane
    o. 1,2-Dichloroethane
    p. 1,1-Dichloroethene
    q. 1,2-Dichloroethene
    r. Ethylbenzene
    s. Methylene Chloride
    t. m-Xylene & p-Xylene
    u. o-Xylene
    v. 1,1,2,2-Trichloroethane
    w. Tetrachloroethene
    x. Toluene
    y. trans-1,2-Dichloroethene
    z. 1,1,1-Trichloroethane
    aa. 1,1,2-Trichloroethane
    ab. Trichloroethene
    ac. Trichlorotrifluoroethane (Freon 113)
    ad. Vinyl chloride
    ae. Xylenes, Total

6. **N-Nitrosodimethylamine (NDMA).** N-Nitrosodimethylamine shall be analyzed using a test method with a reporting level no greater than 0.002 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

7. **Perchlorate.** Analysis for perchlorate shall be by EPA Methods 314.0 or 314.1, or an equivalent method approved by the Regional Board with a reporting level no greater than 4.0 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

8. **1,4-Dioxane.** 1,4-Dioxane shall be analyzed using a test method reporting level no greater than 3 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

9. **Pendimethalin.** Pendimethalin shall be analyzed using a test method with a reporting level no greater than 10 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

10. **Per and Polyfluoroalkyl Substances (PFAS).** Analysis for PFAS shall be by EPA Modified Method 537.1, or equivalent method approved by the Executive Officer, with a reporting level of 0.002 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

11. **2,3,7,8-TCDD and Other Dioxin and Furan Congeners.** 2,3,7,8-TCDD and Other Dioxin and Furan Congeners shall include all 17 of the 2,3,7,8 TCDD dioxin congeners as listed in section 3 of the SIP. Samples shall be collected twice per year, once during wet-weather and once during dry-weather.

B. Monitoring Location M-INFA

1. The Discharger shall monitor influent to the ARGET facility at Monitoring Location M-INFA, in accordance with Table E-2 and the testing requirements described in section III.A above:

Table E-2. ARGET Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
1,4-Dioxane	µg/L	Grab	1/Month
2,3,7,8-TCDD and Other Dioxin and Furan Congeners	Picograms per liter (pg/L)	Grab	2/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
pH	standard units	Grab	1/Month
Perchlorate	µg/L	Grab	1/Month
Semi-volatile Organics	µg/L	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Month

C. Monitoring Location M-INFB

1. The Discharger shall monitor influent to the GET EF facility at Monitoring Location M-INFB, in accordance with Table E-3 and the testing requirements described in section III.A above:

Table E-3. GET EF Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
1,4-Dioxane	µg/L	Grab	1/Month
2,3,7,8-TCDD and Other Dioxin and Furan Congeners	pg/L	Grab	2/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
PFAS	Nanograms per liter (ng/L)	Grab	1/Quarter
Pendimethalin	µg/L	Grab	2/Year
Perchlorate	µg/L	Grab	1/Month
pH	standard units	Grab	1/Month
Semi-volatile Organics	µg/L	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Month

D. Monitoring Location M-INFO

1. The Discharger shall monitor influent to the GET AB facility at Monitoring Location M-INFO, in accordance with Table E-4 and the testing requirements described in section III.A above:

Table E-4. GET AB Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
2,3,7,8-TCDD and Other Dioxin and Furan Congeners	pg/L	Grab	2/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
PFAS	ng/L	Grab	1/Quarter
Perchlorate	µg/L	Grab	1/Month
pH	standard units	Grab	1/Month
Semi-Volatile Organics	µg/L	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Month

E. Monitoring Location M-INFJ

1. The Discharger shall monitor influent to the Sailor Bar Park GET facility at Monitoring Location M-INFJ, in accordance with Table E-5 and the testing requirements described in section III.A above:

Table E-5. Sailor Bar Park GET Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
2,3,7,8-TCDD and Other Dioxin and Furan Congeners	pg/L	Grab	2/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
Perchlorate	µg/L	Grab	1/Month
Semi-Volatile Organics	µg/L	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Month

F. Monitoring Locations M-INFD, M-INFE, M-INFG, M-INFH, M-INFI, M-INFM, M-INFP, and M-INFQ,

1. The Discharger shall monitor influent to GET HA, GET J, GET KA, GET LA, GET LB, AC-18 well system, WRND GET, and AC-25 well system at Monitoring Locations M-INFD, M-INFE, M-INFG, M-INFH, M-INFI, M-INFM, M-INFP. and M-INFQ, respectively, in accordance with Table E-6 and the testing requirements described in section III.A above:

Table E-6. GET HA, GET J, GET KA, GET LA, GET LB, AC-18 well system, WRND GET, and AC-25 well system, Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
2,3,7,8-TCDD and Other Dioxin and Furan Congeners	pg/L	Grab	2/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
Perchlorate	µg/L	Grab	1/Month
Volatile Organics	µg/L	Grab	1/Month

IV. EFFLUENT MONITORING REQUIREMENTS

A. General Effluent Monitoring and Testing Requirements

The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table E-7 through Table E-20:

1. **Applicable to all parameters.** Parameters shall be analyzed using the analytical methods described in 40 CFR part 136; or by methods approved by the Central Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 CFR part 136 allowed sample type.

2. **Grab Samples.** All grab samples shall **not** be collected at the same time each day to get a complete representation of variations in the influent.

3. **Composite Samples.** All composite samples shall be collected from a 24-hour flow proportional composite.

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

5. **Priority Pollutants.** For all priority pollutant constituents listed in Table E-7 through Table E-20 the RL shall be consistent with sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP) and the SSM Rule specified under 40 C.F.R. sections 122.21(e)(3)and 122.44(i)(1)(iv).

6. **Volatile Organic Compounds.** Volatile organic compounds to be reported are those on the EPA Method 8260B Short List shown in section II.A.5 above.

7. **N-Nitrosodimethylamine (NDMA).** N-Nitrosodimethylamine shall be analyzed using a test method with a reporting level no greater than 0.002 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

8. **Perchlorate.** Analysis for perchlorate shall be by EPA Methods 314.0 or 314.1, or an equivalent method approved by the Regional Board with a reporting level no greater than 4.0 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

9. **1,4-Dioxane.** 1,4-Dioxane shall be analyzed using a test method reporting level no greater than 3 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

10. **Pendimethalin.** Pendimethalin shall be analyzed using a test method with a reporting level no greater than 10 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

11. **Per and Polyfluoroalkyl Substances (PFAS).** Analysis for PFAS shall be by EPA Modified Method 537.1, or equivalent method approved by the Executive Officer, with a reporting level of 0.002 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

12. **2,3,7,8-TCDD and Other Dioxin and Furan Congeners.** 2,3,7,8-TCDD and Other Dioxin and Furan Congeners shall include all 17 of the 2,3,7,8 TCDD dioxin congeners as listed in section 3 of the SIP. Samples shall be collected twice per year, once during wet-weather and once during dry-weather.

13. **Hardness** samples shall be collected concurrently with metals samples.

14. **Whole Effluent Toxicity monitoring** shall be in accordance with section V of this MRP.

B. Monitoring Location M-001

1. The Discharger shall monitor the ARGET facility effluent at Monitoring Location M-001 in accordance with Table E-7 and the testing requirements described in section IV.A above:

Table E-7. ARGET Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
1,4-dioxane	µg/L	Grab	1/Month
2,3,7,8-TCDD and Other Dioxin and Furan Congeners	pg/L	Grab	2/Year
Dissolved oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
Perchlorate	µg/L	Grab	1/Quarter
pH	standard units	Grab	1/Month
Semi-Volatile Organics	µg/L	Grab	1/Quarter
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Quarter
Acute Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)
Chronic Toxicity	(see Section V.C)	(see Section V.C)	(see Section V.C)
Priority Pollutants and Other Constituents of Concern	(see Section IX.A)	(see Section IX.A)	(see Section IX.A)

C. Monitoring Location M-002

1. The Discharger shall monitor GET EF effluent at Monitoring Location M-002 in accordance with Table E-8 and the testing requirements described in section IV.A above:

Table E-8. GET EF Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
1,4-dioxane	µg/L	Grab	1/Month
2,3,7,8-TCDD and Other Dioxin and Furan Congeners	pg/L	Grab	2/Year
Acetaldehyde	µg/L	Grab	1/Month
Acrylamide	µg/L	Grab	1/Month
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Formaldehyde	µg/L	Grab	1/Month
Hardness as CaCO3	mg/L	Grab	1/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
Pendimethalin	µg/L	Grab	2/Year
Perchlorate	µg/L	Grab	1/Quarter
PFAS	ng/L	Grab	1/Quarter
pH	standard units	Grab	1/Month
Semi-Volatile Organics	µg/L	Grab	1/Quarter
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Quarter
Acute Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)
Chronic Toxicity	(see Section V.C)	(see Section V.C)	(see Section V.C)
Priority Pollutants and Other Constituents of Concern	(see Section IX.A)	(see Section IX.A)	(see Section IX.A)

D. Monitoring Location M-004

1. The Discharger shall monitor GET HA effluent at Monitoring Location M-004 in accordance with Table E-9 and the testing requirements described in section IV.A above:

Table E-9. GET HA Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
Perchlorate	µg/L	Grab	1/Quarter
pH	standard units	Grab	1/Month
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Quarter
Acute Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)

E. Monitoring Location M-005

1. The Discharger shall monitor GET J effluent at Monitoring Location M-005 in accordance with Table E-10 and the testing requirements described in section IV.A above:

Table E-10. GET J Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
Perchlorate	µg/L	Grab	1/Quarter
pH	standard units	Grab	1/Month
Temperature	°C	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Quarter
Acute Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)

F. Monitoring Location M-007

1. The Discharger shall monitor GET KA effluent at Monitoring Location M-007 in accordance with Table E-11 and the testing requirements described in section IV.A above:

Table E-11. GET KA Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
Perchlorate	µg/L	Grab	1/Quarter
pH	standard units	Grab	1/Month
Temperature	°C	Grab	1/Quarter
Tetrachloroethylene	µg/L	Grab	1/Month
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Quarter
Acute Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)

Table E-11 Note:
1. Perchlorate monitoring is only required if detected in the influent above the reporting limit at Monitoring Location M-INFG.

G. Monitoring Location M-008

1. When discharging, the Discharger shall monitor GET LA effluent at Monitoring Location M-008, in accordance with Table E-12 and the testing requirements described in section IV.A above:

Table E-12. GET LA Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
Perchlorate	µg/L	Grab	1/Month
pH	standard units	Grab	1/Month

Parameter	Units	Sample Type	Minimum Sampling Frequency
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Month
Acute Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)

Table E-12 Note:
1. Perchlorate and volatile organics monitoring is only required if detected in the influent above the reporting limit at Monitoring Location M-INFH.

H. Monitoring Location M-009

1. The Discharger shall monitor GET LB effluent at Monitoring Location M-009, in accordance with Table E-13 and the testing requirements described in section IV.A above:

Table E-13. GET LB Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
Perchlorate	µg/L	Grab	1/Quarter
pH	standard units	Grab	1/Month
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Quarter
Acute Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)

I. Monitoring Location M-010

1. The Discharger shall monitor the Sailor Bar Park GET effluent at Monitoring Location M-010 in accordance with Table E-14 and the testing requirements described in section IV.A above:

Table E-14. Sailor Bar Park GET Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
1,4-dioxane	µg/L	Grab	1/Quarter
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Freon 113	µg/L	Grab	1/Month
Hardness as CaCO3	mg/L	Grab	1/Year
Perchlorate	µg/L	Grab	1/Quarter
pH	standard units	Grab	1/Month
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Quarter

Table E-14 Note:

1. 1,4-Dioxane monitoring is only required if detected in the influent above the reporting limit at Monitoring Location M-INFJ.

J. Monitoring Location M-012

1. The Discharger shall monitor the Low Threat Discharges effluent at Monitoring Location M-012 in accordance with Table E-15 and the testing requirements described in section IV.A above:

Table E-15. Low Threat Discharges Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
1,4-Dioxane	µg/L	Grab	Once per well purge Beginning, middle and end of Aquifer Test
Perchlorate	µg/L	Grab	Once per 10,000 gallons purge water for Well Purge Beginning, middle and end of Aquifer Test

Parameter	Units	Sample Type	Minimum Sampling Frequency
N-Nitrosodimethylamine	ng/L	Grab	Once per well purge Beginning, middle and end of Aquifer Test
Temperature	°C	Grab	Once per well purge Beginning, middle and end of Aquifer Test
Volatile Organics	µg/L	Grab	Once per 10,000 gallons purge water for Well Purge Beginning, middle and end of Aquifer Test

K. Monitoring Location M-014

1. The Discharger shall monitor AC-18 effluent at Monitoring Location M-014 in accordance with Table E-16 and the testing requirements described in section IV.A above:

Table E-16. AC-18 Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
Perchlorate	µg/L	Grab	1/Month
pH	standard units	Grab	1/Month
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Month

Table E-16 Note:

1. Volatile organics sampling is only required if detected in the influent above the reporting limit at Monitoring Location M-INFM.

L. Monitoring Location M-016

1. The Discharger shall monitor GET AB effluent at Monitoring Location M-016 in accordance with Table E-17 and the testing requirements described in section IV.A above:

Table E-17. GET AB Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Dissolved oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
Perchlorate	µg/L	Grab	1/Quarter
PFAS	ng/L	Grab	1/Quarter
pH	standard units	Grab	1/Month
Semi-Volatile Organics	µg/L	Grab	1/Quarter
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Quarter
Acute Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)

Table E-17 Note:
1. Semi-volatile organics monitoring is only required if detected in the influent above the reporting limit at Monitoring Location M-INFO.

M. Monitoring Location M-017

1. The Discharger shall monitor the WRND GET effluent at Monitoring Location M-017 in accordance with Table E-18 and the testing requirements described in section IV.A above:

Table E-18. WRND GET Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Dissolved oxygen	mg/L	Grab	1/Quarter

Parameter	Units	Sample Type	Minimum Sampling Frequency
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
PFAS	ng/L	Grab	1/Quarter
Perchlorate	µg/L	Grab	1/Quarter
pH	standard units	Grab	1/Month
Semi-Volatile Organics	µg/L	Grab	1/Quarter
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Quarter
Acute Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)

Table E-18 Note:

1. NDMA sampling is only required if detected in the influent above the reporting limit at Monitoring Location M-INFP.

N. Monitoring Location M-019

1. The Discharger shall monitor Cooling Tower 20019 effluent at Monitoring Location M-019 in accordance with Table E-19 and the testing requirements described in section IV.A above:

Table E-19. Cooling Tower 20019 Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Copper, Total	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Month
Hardness as CaCO3	mg/L	Grab	1/Quarter (see table note)
Acute Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)

Table Note E-19 Note:

1. Hardness shall be sampled concurrently with copper.

O. Monitoring Location M-020

1. The Discharger shall monitor AC-25 effluent at Monitoring Location M-020 in accordance with Table E-20 and the testing requirements described in section IV.A above:

Table E-20. AC-25 Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Dissolved oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month
Perchlorate	µg/L	Grab	1/Month
pH	standard units	Grab	1/Month
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Month

Table E-20 Note:
1. NDMA sampling is only required if detected in the influent above the reporting limit at Monitoring Location M-INFQ.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Toxicity Calendar Month, Quarter and Year.

1. **Toxicity Calendar Month.** The toxicity calendar month is defined as the period of time beginning on the day of the initiation of the routine toxicity monitoring to the day before the corresponding day of the next month if the corresponding day exists, or if not to the last day of the next month.

2. **Toxicity Calendar Quarter.** A toxicity calendar quarter is defined as **three consecutive toxicity calendar months.** For purposes of this Order, the toxicity calendar quarters **begin on 1 January, 1 April, 1 July, and 1 October** (i.e., from 1 January to 31 March, from 1 April to 30 June, from 1 July to 30 September, etc.).

3. **Toxicity Calendar Year.** A toxicity calendar year is defined as **twelve consecutive toxicity calendar months.** For purposes of this Order, the toxicity calendar year **begins on 1 January** (i.e., 1 January to 31 December), in years in which there are at least 15 days of discharge in at least one toxicity calendar quarter.

B. Acute Toxicity Testing. The Discharger shall meet the following acute toxicity testing requirements:

1. **Instream Waste Concentration (IWC) for Acute Toxicity.** The acute toxicity IWC is 100 percent effluent.

2. **Routine Monitoring Frequency.** The Discharger shall perform routine acute toxicity testing once per toxicity calendar year in years in which there are at least 15 days of discharge in at least one toxicity calendar quarter.

3. **Acute Toxicity MMEL Compliance Testing.** If a routine acute toxicity monitoring test results in a "fail" at the IWC, then a maximum of two acute toxicity MMEL compliance tests shall be completed. The acute toxicity MMEL compliance tests shall be initiated within the same toxicity calendar month that the routine monitoring acute toxicity test was initiated that resulted in the "fail" at the IWC. If the first acute toxicity MMEL compliance test results in a "fail" at the IWC, then the second acute toxicity MMEL compliance test is unnecessary and is waived.

4. **Sample Types.** The Discharger may use flow-through or static renewal testing. For static renewal testing, the samples shall be grab samples and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Locations specified in Tables E-7 through E-20 above.

5. **Test Species.** Test species shall be fathead minnows (*Pimephales promelas*).

6. **Methods.** The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition or methods identified in the Code of Federal Regulations, title 40, part 136, or other U.S. EPA-approved methods. Temperature, total residual chlorine, and pH shall be recorded at the time of sample collection. No pH adjustment may be made unless approved by the Executive Officer.

7. **Test Failure.** If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger must conduct a replacement test as soon as possible, as specified in the subsection below.

8. **Replacement Test.** When a required toxicity test for routine monitoring or MMEL compliance test is not completed, a new toxicity test to replace the toxicity test that was not completed shall be initiated as soon as possible. The new toxicity test shall replace the routine monitoring or MMEL compliance test, as applicable, for the toxicity calendar month in which the toxicity test that was not completed was required to be initiated, even if the new toxicity test is initiated in a subsequent month. The new toxicity test for routine monitoring or MMEL compliance tests, as applicable, and any MMEL compliance tests required to be conducted due to the results of the new toxicity test shall be used to determine compliance with the effluent limitations for the toxicity calendar month in which

the toxicity test that was not completed was required to be initiated. The new toxicity test and any MMEL compliance tests required to be conducted due to the results of the new toxicity test shall not be used to substitute for any other required toxicity tests.

Any specific monitoring event is not required to be initiated in the required time period when the Central Valley Water Board staff determines that the test was not initiated in the required time period due to circumstances outside of the Discharger's control that were not preventable with the reasonable exercise of care, and the Discharger promptly initiates, and ultimately completes, a replacement test.

C. Chronic Toxicity Testing. The Discharger shall meet the following chronic toxicity testing requirements:

1. **Instream Waste Concentration (IWC) for Chronic Toxicity.** The chronic toxicity IWC is 100 percent effluent.

2. **Routine Monitoring Frequency.** The Discharger shall perform routine chronic toxicity testing once per toxicity calendar quarter in quarters in which there are at least 15 days of discharge. While the Discharger is conducting a toxicity reduction evaluation the routine monitoring may be reduced to two (2) tests per toxicity calendar year. When there is no effluent available to complete a routine monitoring test or **MMEL** test, the test shall not be required, and subsequent routine monitoring continues at the frequency specified in the permit.

3. **Chronic Toxicity MMEL Compliance Testing.** If a routine chronic toxicity monitoring test results in a "fail" at the IWC, then the Discharger shall complete a chronic toxicity MMEL compliance test. If the MMEL compliance test results in a "pass", the Discharger shall complete a second chronic toxicity MMEL compliance test. All required chronic toxicity MMEL compliance tests shall be initiated within the same toxicity calendar month as the initiation of the routine monitoring chronic toxicity test. If the first chronic toxicity MMEL compliance test results in a "fail" at the IWC, then the second chronic toxicity MMEL compliance test is unnecessary and is waived.

4. **Additional Routine Monitoring Tests for TRE Determination.** A TRE is required when there is any combination of two or more MDEL or MMEL violations within a single toxicity calendar month or within two successive toxicity calendar months. In order to determine if a TRE is necessary when there is only one MDEL or MMEL violation in a single toxicity month, an additional routine monitoring test is required in the successive toxicity month. This additional routine monitoring test is not required if the Discharger is already conducting a TRE. This additional routine monitoring test could result in a violation of the MDEL and/or the need to conduct additional MMEL compliance tests per section V.B.3 above.

5. **Sample Volumes.** Adequate sample volumes shall be collected to provide renewal water to complete the test in the event that the discharge is intermittent.

6. **Test Species.** The testing shall be conducted using the most sensitive species, which is water flea (*Ceriodaphnia dubia*). The Discharger shall conduct chronic toxicity tests with *Ceriodaphnia dubia*, unless otherwise specified in writing by the Executive Officer (see Section V.G.2 for more information on the determination of the most sensitive species).

7. **Test Methods.** Discharger shall conduct the chronic toxicity tests on effluent samples at the instream 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/R02/013, 2002; Table IA, 40 C.F.R. part 136).

8. **Dilution and Control Water.** Dilution water and control water shall be 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.

9. **Test Failure.** If the effluent chronic toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method in EPA/821-R-02-013, the Discharger must conduct a Replacement Test as soon as possible, as specified in subsection B.10, below.

10. **Replacement Test.** When a required toxicity test for routine monitoring or MMEL compliance tests is not completed, a new toxicity test to replace the toxicity test that was not completed shall be initiated as soon as possible. The new toxicity test shall replace the routine monitoring or MMEL compliance tests, as applicable, for the toxicity calendar month in which the toxicity test that was not completed was required to be initiated, even if the new toxicity test is initiated in a subsequent month. The new toxicity test for routine monitoring or MMEL compliance tests, as applicable, and any MMEL compliance tests required to be conducted due to the results of the new toxicity test shall be used to determine compliance with the effluent limitations for the toxicity calendar month in which the toxicity test that was not completed was required to be initiated. The new toxicity test and any MMEL compliance tests required to be conducted due to the results of the new toxicity test shall not be used to substitute for any other required toxicity tests.

    Scenarios could occur in which a test is not initiated by a Discharger within the required time period. When this is caused by circumstances outside of the Discharger's control, that were not preventable with the reasonable exercise of care, the Central Valley Water Board will not require the test to be initiated within the originally required time period, provided that the Discharger promptly initiates, and ultimately completes, a replacement test. In such cases, the Central Valley

Water Board must determine that the circumstances were not preventable with the reasonable exercise of care.

D. 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 below.

1. The discharge is subject to determination of "Pass" or "Fail" from an acute toxicity test and 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 and Table A-1 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1.

2. The null hypothesis (Ho) for the TST statistical approach is:

   Mean discharge IWC response ≤ RMD x Mean control response, where the chronic RMD = 0.75 and the acute RMD = 0.80.

   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."

3. The relative "Percent Effect" at the discharge IWC is defined and reported as:

   Percent Effect = ((Mean control response – Mean discharge IWC response) / Mean control response) x 100.

   This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations, 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 differs from the control, the test result is "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.

E. WET Testing Notification Requirements. The Discharger shall notify the Central Valley Water Board of test results exceeding the acute toxicity effluent limitation or chronic toxicity effluent limitation as soon as the Discharger learns of the exceedance, but no later than 24-hours after receipt of the monitoring results.

F. WET Testing Reporting Requirements. The Discharger shall submit the full laboratory report for all toxicity testing as an attachment to CIWQS for the reporting period (e.g., monthly, quarterly, semi-annually or annually) and provide the data (i.e., Pass/Fail) in the PET tool for uploading into CIWQS. The laboratory report shall include:

1. The valid toxicity test results for the TST statistical approach, reported as "Pass" or "Fail" and "Percent Effect" at the IWC for the discharge, the dates of sample

collection and initiation of each toxicity test all results for effluent parameters monitored concurrently by the lab conducting the toxicity test(s).

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

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

G. Most Sensitive Species Screening. The Discharger shall conduct its initial species sensitivity screening by 31 May 2030.

The species sensitivity screening shall be conducted at least once every fifteen years as follows and the results of the most recent species sensitivity screening shall be submitted with the Report of Waste Discharge.

1. **Frequency of Testing for Species Sensitivity Screening.** Species sensitivity screening for chronic toxicity shall include, at a minimum, chronic WET testing four consecutive calendar quarters using the water flea (*Ceriodaphnia dubia*), fathead minnow (*Pimephales promelas*), and green algae (*Pseudokirchneriella subcapitata, also known as Selenastrum capricornutum*). The tests shall be performed at an IWC of no less than 100 percent effluent.

2. **Determination of Most Sensitive Species.** If a single test in the species sensitivity screening testing results in a “Fail” using the TST statistical approach, then the species used in that test shall be established as the most sensitive species. If there is more than a single test that results in a “Fail”, then of the species with results of a “Fail”, the species that exhibits the highest percent effect shall be established as the most sensitive species. If none of the tests in the species sensitivity screening results in a “Fail”, but at least one of the species exhibits a percent effect greater than **10** percent, then the single species that exhibits the highest percent effect shall be established as the most sensitive species. In all other circumstances, the Executive Officer shall have discretion to determine which single species is the most sensitive considering the test results from the species sensitivity screening. For subsequent species sensitivity screening, if the first two subsequent screening events result in no change in the most sensitive species, the Discharger may cease the subsequent species sensitive screening testing and the most sensitive species will remain unchanged.

   The Executive Officer shall have discretion to allow the temporary use of the next appropriate species as the most sensitive species when the Discharger submits documentation and the Executive Officer determines that the Discharger has encountered unresolvable test interference or cannot secure a reliable supply of test organisms. The “next appropriate species” is a species in Table 1 of the

Statewide Toxicity Provisions in the same test method classification (e.g., chronic aquatic toxicity test methods, acute aquatic toxicity test method), in the same salinity classification (e.g., freshwater or marine), and in the same taxon as the most sensitive species. When there are no other species in Table 1 in the same taxon as the most sensitive species (e.g., freshwater chronic toxicity tests), the "next appropriate species" is the species exhibiting the highest percent effect at the IWC tested in the species sensitivity screening other than the most sensitive species.

The most sensitive species shall be used for chronic toxicity testing for the remainder of the permit term. The Discharger may use the four most recent tests for use in determining the most sensitive species if the tests were conducted in a manner sufficient to make such determination. If the most sensitive species cannot be determined from the species sensitivity screening discussed above, the Discharger shall rotate the test species as the most sensitive species every toxicity calendar year as follows:

a. *Ceriodaphnia dubia* (survival and reproduction test) for the remainder of the toxicity calendar year this Order is effective;

b. *Pimephales promelas* (larval survival and growth test) for the entire toxicity calendar year following the toxicity calendar year this Order is effective;

c. *Pseudokirchnereilla subcapitata* (growth test) for the entire toxicity calendar year of the second year following the toxicity calendar year this Order is effective; and

d. Cycling back to *Ceriodaphnia dubia* (survival and reproduction test) after *Pseudokirchnereilla subcapitata* (growth test) and through the same rotation.

If a single test exhibits toxicity, demonstrated by a test that results in a "Fail" using the TST statistical approach, then the species used in that test shall be established as the most sensitive species until a subsequent Order rescinding this Order becomes effective.

H. Toxicity Reduction Evaluations (TRE)

1. **TRE Implementation.** The Discharger is required to conduct a TRE when there is any combination of two or more MDEL or MMEL violations within a single toxicity calendar month or within two successive toxicity 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), the Central Valley Water Board may require a TRE. A TRE may also be required when there is no effluent available to complete a routine monitoring test or MMEL compliance test.

a. **Preparation and Implementation of Detailed TRE Action Plan.** The Discharger shall conduct TREs in accordance with an approved TRE Work Plan. Within 30 days of the test result that triggered the TRE, the Discharger shall submit to the Executive Officer a TRE Action Plan. The TRE Action Plan shall include the following information, and comply with additional conditions set by the Executive Officer:

   i. Specific actions the Discharger will take to investigate and identify the cause(s) of toxicity, including a TRE WET monitoring schedule;

   ii. Specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and

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

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

VI. LAND DISCHARGE MONITORING REQUIREMENTS

A. Monitoring Location LND-001

1. The Discharger shall monitor discharge from Discharge Points 016 for GET AB and Discharge Point 017 for WRND GET facilities to Rebel Hill Ditch at Monitoring Location LND-001 in accordance with Table E-21:

Table E-21. Land Discharge Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. General Receiving Water Monitoring and Testing Requirements

The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table E-22 through Table E-23:

1. **Applicable to all parameters.** Parameters shall be analyzed using the analytical methods described in 40 CFR part 136; or by methods approved by the Central

Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 CFR part 136 allowed sample type.

2. **Grab Samples.** All grab samples shall **not** be collected at the same time each day to get a complete representation of variations in the influent.

3. **Composite Samples.** All composite samples shall be collected from a 24-hour flow proportional composite.

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

5. **Priority Pollutants.** For all priority pollutant constituents listed in Table E-22 through Table E-23 the RL shall be consistent with sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP) and the SSM Rule specified under 40 C.F.R. sections 122.21(e)(3)and 122.44(i)(1)(iv).

6. **Volatile Organic Compounds.** Volatile organic compounds to be reported are those on the EPA Method 8260B Short List shown in section III.A.5 above.

7. **N-Nitrosodimethylamine (NDMA).** N-Nitrosodimethylamine shall be analyzed using a test method with a reporting level no greater than 0.002 µg/L. All concentrations between the method detection limit and reporting level shall be reported as trace.

8. **Perchlorate.** Analysis for perchlorate shall be by EPA Methods 314.0 or 314.1, or an equivalent method approved by the Regional Board with a reporting level no greater than 4.0 µg/L. All concentrations between the method detection limit and reporting level shall be reported as trace.

9. **1,4-Dioxane.** 1,4-Dioxane shall be analyzed using a test method reporting level no greater than 3 µg/L. All concentrations between the method detection limit and reporting level shall be reported as trace.

10. **Monitoring Locations R-014, R-015, R-016, and R-017.** Receiving water monitoring at Monitoring Locations R-014, R-015, R-016, and R-017 is not required until the Discharger meets the requirements of Waste Discharge Requirements section VI.C.6.b and discharges commence from Outfalls 008 and 009.

11. **Monitoring Locations R-018 and R-019.** Receiving water monitoring at Monitoring Locations R-018 and R-019 is not required until the Discharger meets the requirements of Waste Discharge Requirements section VI.C.6.c and discharges commence from Outfall 010.

12. In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by the upstream monitoring point and downstream monitoring point when discharging to the receiving water. Attention shall be given to the presence of:

    a. Floating or suspended matter;

    b. Discoloration;

    c. Bottom deposits;

    d. Aquatic life;

    e. Visible films, sheens, or coatings;

    f. Fungi, slimes, or objectionable growths; and

    g. Potential nuisance conditions.

    Notes on receiving water conditions shall be summarized in the monitoring report.

B. Monitoring Locations R-001, R-002, R-003, R-004, R-005, R-006, R-007, R-014, R-015, R-016, R-017, R-018, and R-019

1. The Discharger shall monitor the American River at Monitoring Locations R-001, R-002, R-003, R-004, R-005, R-006, R-007, R-014 and R-015, Alder Creek at Monitoring Locations R-016 and R-017, and Morrison Creek at Monitoring Locations R-018 and R-019 in accordance with Table E-22 and the testing requirements described in section VIII.A above:

Table E-22. American River, Alder Creek, and Morrison Creek Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Year
N-Nitrosodimethylamine	µg/L	Grab	1/Month

Parameter	Units	Sample Type	Minimum Sampling Frequency
Perchlorate	µg/L	Grab	1/Month
pH	standard units	Grab	1/Month
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Month
Priority Pollutants and Other Constituents of Concern	(see Section IX.A)	(see Section IX.A)	(see Section IX.A)

Table E-22 Note:
1. Priority Pollutants and Other Constituents of Concern monitoring is only required at Monitoring Location R-001.

C. Monitoring Locations R-012 and R-013

1. The Discharger shall monitor Morrison Creek at Monitoring Locations R-012 and R-013 in accordance with Table E-23 and the testing requirements described in section VIII.A above:

Table E-23. Morrison Creek Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved Oxygen	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°Celsius	µmhos/cm	Grab	1/Quarter
Hardness as CaCO3	mg/L	Grab	1/Quarter
Perchlorate	µg/L	Grab	1/Month
pH	standard units	Grab	1/Month
Temperature	°C	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Turbidity	NTU	Grab	1/Quarter
Volatile Organics	µg/L	Grab	1/Month

IX. OTHER MONITORING REQUIREMENTS

A. Effluent and Receiving Water Characterization

1. **Monitoring Frequency**

a. **Effluent Sampling.** Samples shall be collected from the effluent at Monitoring Locations M-001 and M-002 quarterly for one year between 1 July 2027 and 30 June 2028.

b. **Receiving Water Sampling.** Samples shall be collected from the upstream receiving water Monitoring Location R-001 quarterly for one year between 1 July 2027 and 30 June 2028.

2. **Analytical Methods.** Constituents shall be collected and analyzed consistent with the Discharger's Analytical Methods Report (MRP, X.D.2) using sufficiently sensitive analytical methods and Reporting Levels (RLs) per the SSM Rule specified in 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv). The "Reporting Level" is synonymous with the "Method Minimum Level" described in the SSM Rule. The results of the monitoring shall be submitted to the Central Valley Water Board with the quarterly self-monitoring reports. Each individual monitoring event shall provide representative sample results for the effluent and upstream receiving water, if receiving water is sampled.

3. **Analytical Methods Report Certification.** Prior to beginning the Effluent and Receiving Water Characterization monitoring, the Discharger shall provide a certification acknowledging the scheduled start date of the Effluent and Receiving Water Characterization monitoring and confirming that samples will be collected and analyzed as described in the previously submitted Analytical Methods Report. If there are changes to the previously submitted Analytical Methods Report, the Discharger shall outline those changes. A one-page certification form will be provided by Central Valley Water Board staff with the permit's Notice of Adoption that the Discharger can use to satisfy this requirement. The certification form shall be submitted electronically via CIWQS submittal by the due date in the Technical Reports Table E-26.

4. The Discharger shall conduct effluent and receiving water characterization monitoring at the monitoring frequency described in section IX.A.1 above in accordance with Table E-24 and the testing requirements described in section IX.A.5 below.

Table E-24. Effluent and Receiving Water Characterization Monitoring

VOLATILE ORGANICS

CTR Number	Volatile Organic Parameters	CAS Number	Units	Effluent Sample Type
25	2-Chloroethyl vinyl Ether	110-75-8	µg/L	Grab
17	Acrolein	107-02-8	µg/L	Grab
18	Acrylonitrile	107-13-1	µg/L	Grab
19	Benzene	71-43-2	µg/L	Grab
20	Bromoform	75-25-2	µg/L	Grab
21	Carbon Tetrachloride	56-23-5	µg/L	Grab

CTR Number	Volatile Organic Parameters	CAS Number	Units	Effluent Sample Type
22	Chlorobenzene	108-90-7	µg/L	Grab
24	Chloroethane	75-00-3	µg/L	Grab
26	Chloroform	67-66-3	µg/L	Grab
35	Methyl Chloride	74-87-3	µg/L	Grab
23	Dibromochloromethane	124-48-1	µg/L	Grab
27	Dichlorobromomethane	75-27-4	µg/L	Grab
36	Methylene Chloride	75-09-2	µg/L	Grab
33	Ethylbenzene	100-41-4	µg/L	Grab
89	Hexachlorobutadiene	87-68-3	µg/L	Grab
34	Methyl Bromide (Bromomethane)	74-83-9	µg/L	Grab
94	Naphthalene	91-20-3	µg/L	Grab
38	Tetrachloroethylene (PCE)	127-18-4	µg/L	Grab
39	Toluene	108-88-3	µg/L	Grab
40	trans-1,2-Dichloroethylene	156-60-5	µg/L	Grab
43	Trichloroethylene (TCE)	79-01-6	µg/L	Grab
44	Vinyl Chloride	75-01-4	µg/L	Grab
NL	Methyl-tert-butyl ether (MTBE)	1634-04-4	µg/L	Grab
41	1,1,1-Trichloroethane	71-55-6	µg/L	Grab
42	1,1,2-Trichloroethane	79-00-5	µg/L	Grab
28	1,1-Dichloroethane	75-34-3	µg/L	Grab
30	1,1-Dichloroethylene (DCE)	75-35-4	µg/L	Grab
31	1,2-Dichloropropane	78-87-5	µg/L	Grab
32	1,3-Dichloropropylene	542-75-6	µg/L	Grab
37	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	Grab
101	1,2,4-Trichlorobenzene	120-82-1	µg/L	Grab
29	1,2-Dichloroethane	107-06-2	µg/L	Grab
75	1,2-Dichlorobenzene	95-50-1	µg/L	Grab
76	1,3-Dichlorobenzene	541-73-1	µg/L	Grab
77	1,4-Dichlorobenzene	106-46-7	µg/L	Grab
NL	cis-1,2-Dichloroethylene	156-59-2	µg/L	Grab

SEMI-VOLATILE ORGANICS

CTR Number	Semi-Organic Volatile Parameters	CAS Number	Units	Effluent Sample Type
60	Benzo(a)Anthracene	56-55-3	µg/L	Grab
85	1,2-Diphenylhydrazine	122-66-7	µg/L	Grab
45	2-Chlorophenol	95-57-8	µg/L	Grab
46	2,4-Dichlorophenol	120-83-2	µg/L	Grab
47	2,4-Dimethylphenol	105-67-9	µg/L	Grab
49	2,4-Dinitrophenol	51-28-5	µg/L	Grab
82	2,4-Dinitrotoluene	121-14-2	µg/L	Grab

CTR Number	Semi-Organic Volatile Parameters	CAS Number	Units	Effluent Sample Type
55	2,4,6-Trichlorophenol	88-06-2	µg/L	Grab
83	2,6-Dinitrotoluene	606-20-2	µg/L	Grab
50	2-Nitrophenol	88-75-5	µg/L	Grab
71	2-Chloronaphthalene	91-58-7	µg/L	Grab
78	3,3-Dichlorobenzidine	91-94-1	µg/L	Grab
62	Benzo(b)Fluoranthene	205-99-2	µg/L	Grab
52	4-Chloro-3-methylphenol	59-50-7	µg/L	Grab
48	2-Methyl-4,6-Dinitrophenol	534-52-1	µg/L	Grab
51	4-Nitrophenol	100-02-7	µg/L	Grab
69	4-Bromophenyl Phenyl Ether	101-55-3	µg/L	Grab
72	4-Chlorophenyl Phenyl Ether	7005-72-3	µg/L	Grab
56	Acenaphthene	83-32-9	µg/L	Grab
57	Acenaphthylene	208-96-8	µg/L	Grab
58	Anthracene	120-12-7	µg/L	Grab
59	Benzidine	92-87-5	µg/L	Grab
61	Benzo(a)Pyrene	50-32-8	µg/L	Grab
63	Benzo(ghi)Perylene	191-24-2	µg/L	Grab
64	Benzo(k)Fluoranthene	207-08-9	µg/L	Grab
65	Bis (2-Chloroethoxy) Methane	111-91-1	µg/L	Grab
66	Bis (2-Chloroethyl) Ether	111-44-4	µg/L	Grab
67	Bis (2-Chloroisopropyl) Ether	108-60-1	µg/L	Grab
68	Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/L	Grab
70	Butylbenzyl Phthalate	85-68-7	µg/L	Grab
73	Chrysene	218-01-9	µg/L	Grab
81	Di-n-butyl Phthalate	84-74-2	µg/L	Grab
84	Di-n-Octyl Phthalate	117-84-0	µg/L	Grab
74	Dibenzo(a,h)anthracene	53-70-3	µg/L	Grab
79	Diethyl Phthalate	84-66-2	µg/L	Grab
80	Dimethyl Phthalate	131-11-3	µg/L	Grab
86	Fluoranthene	206-44-0	µg/L	Grab
87	Fluorene	86-73-7	µg/L	Grab
88	Hexachlorobenzene	118-74-1	µg/L	Grab
90	Hexachlorocyclopentadiene	77-47-4	µg/L	Grab
91	Hexachloroethane	67-72-1	µg/L	Grab
92	Indeno(1,2,3-cd) Pyrene	193-39-5	µg/L	Grab
93	Isophorone	78-59-1	µg/L	Grab
98	N-Nitrosodiphenylamine	86-30-6	µg/L	Grab
96	N-Nitrosodimethylamine	62-75-9	µg/L	Grab
97	N-Nitrosodi-n-Propylamine	621-64-7	µg/L	Grab
95	Nitrobenzene	98-95-3	µg/L	Grab
53	Pentachlorophenol (PCP)	87-86-5	µg/L	Grab
99	Phenanthrene	85-01-8	µg/L	Grab

CTR Number	Semi-Organic Volatile Parameters	CAS Number	Units	Effluent Sample Type
54	Phenol	108-95-2	µg/L	Grab
100	Pyrene	129-00-0	µg/L	Grab
NL	1,4-Dioxane	123-91-1	µg/L	Grab

INORGANICS

CTR Number	Inorganic Parameters	CAS Number	Units	Effluent Sample Type
NL	Aluminum	7429-90-5	µg/L	Grab
1	Antimony, Total	7440-36-0	µg/L	Grab
2	Arsenic, Total	7440-38-2	µg/L	Grab
15	Asbestos	1332-21-4	µg/L	Grab
3	Beryllium, Total	7440-41-7	µg/L	Grab
4	Cadmium, Total	7440-43-9	µg/L	Grab
5a	Chromium, Total	7440-47-3	µg/L	Grab
6	Copper, Total	7440-50-8	µg/L	Grab
NL	Iron, Total	7439-89-6	µg/L	Grab
7	Lead, Total	7439-92-1	µg/L	Grab
8	Mercury, Total	7439-97-6	µg/L	Grab
NL	Mercury, Methyl	22967-92-6	µg/L	Grab
NL	Manganese, Total	7439-96-5	µg/L	Grab
9	Nickel, Total	7440-02-0	µg/L	Grab
10	Selenium, Total	7782-49-2	µg/L	Grab
11	Silver, Total	7440-22-4	µg/L	Grab
12	Thallium, Total	7440-28-0	µg/L	Grab
13	Zinc, Total	7440-66-6	µg/L	Grab
NL	Perchlorate	14797-73-0	µg/L	Grab

NON-METALS/MINERALS

CTR Number	Non-Metal/Mineral Parameters	CAS Number	Units	Effluent Sample Type
NL	Boron	7440-42-8	µg/L	Grab
NL	Chloride	16887-00-6	mg/L	Grab
14	Cyanide, Total (as CN)	57-12-5	µg/L	Grab
NL	Sulfate	14808-79-8	mg/L	Grab
NL	Sulfide (as S)	5651-88-7	mg/L	Grab

PESTICIDES/PCBs/DIOXINS

CTR Number	Pesticide/PCB/Dioxin Parameters	CAS Number	Units	Effluent Sample Type
110	4,4-DDD	72-54-8	µg/L	Grab
109	4,4-DDE	72-55-9	µg/L	Grab

CTR Number	Pesticide/PCB/Dioxin Parameters	CAS Number	Units	Effluent Sample Type
108	4,4-DDT	50-29-3	µg/L	Grab
112	alpha-Endosulfan	959-98-8	µg/L	Grab
103	alpha-BHC (Benzene hexachloride)	319-84-6	µg/L	Grab
102	Aldrin	309-00-2	µg/L	Grab
113	beta-Endosulfan	33213-65-9	µg/L	Grab
104	beta-BHC (Benzene hexachloride)	319-85-7	µg/L	Grab
107	Chlordane	57-74-9	µg/L	Grab
106	delta-BHC (Benzene hexachloride)	319-86-8	µg/L	Grab
111	Dieldrin	60-57-1	µg/L	Grab
114	Endosulfan Sulfate	1031-07-8	µg/L	Grab
115	Endrin	72-20-8	µg/L	Grab
116	Endrin Aldehyde	7421-93-4	µg/L	Grab
117	Heptachlor	76-44-8	µg/L	Grab
118	Heptachlor Epoxide	1024-57-3	µg/L	Grab
105	gamma-BHC (Benzene hexachloride or Lindane)	58-89-9	µg/L	Grab
119	Polychlorinated Biphenyl (PCB) 1016	12674-11-2	µg/L	Grab
120	PCB 1221	11104-28-2	µg/L	Grab
121	PCB 1232	11141-16-5	µg/L	Grab
122	PCB 1242	53469-21-9	µg/L	Grab
123	PCB 1248	12672-29-6	µg/L	Grab
124	PCB 1254	11097-69-1	µg/L	Grab
125	PCB 1260	11096-82-5	µg/L	Grab
126	Toxaphene	8001-35-2	µg/L	Grab
16	2,3,7,8-TCDD (Dioxin)	1746-01-6	mg/L	Grab

CONVENTIONAL PARAMETERS

CTR Number	Conventional Parameters	CAS Number	Units	Effluent Sample Type
NL	pH	--	SU	Grab
NL	Temperature	--	ºC	Grab

NON-CONVENTIONAL PARAMETERS

CTR Number	Nonconventional Parameters	CAS Number	Units	Effluent Sample Type
NL	Foaming Agents (MBAS)	MBAS	mg/L	Grab
NL	Hardness (as CaCO3)	471-34-1	mg/L	Grab
NL	Specific Conductance (Electrical Conductivity or EC)	EC	µmhos /cm	Grab
NL	Total Dissolved Solids (TDS)	TDS	mg/L	Grab
NL	Dissolved Organic Carbon (DOC)	DOC	mg/L	Grab

NUTRIENTS

CTR Number	Nutrient Parameters	CAS Number	Units	Effluent Sample Type
NL	Ammonia (as N)	7664-41-7	mg/L	Grab
NL	Nitrate (as N)	14797-55-8	mg/L	Grab
NL	Nitrite (as N)	14797-65-0	mg/L	Grab
NL	Phosphorus, Total (as P)	7723-14-0	mg/L	Grab

OTHER CONSTITUENTS OF CONCERN

CTR Number	Other Constituents of Concern	CAS Number	Units	Effluent Sample Type
NL	1,2,3-Trichloropropane (TCP)	96-18-4	µg/L	Grab
NL	Trichlorofluoromethane	75-69-4	µg/L	Grab
NL	1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	µg/L	Grab
NL	Styrene	100-42-5	µg/L	Grab
NL	Xylenes	1330-20-7	µg/L	Grab
NL	Barium	7440-39-3	µg/L	Grab
NL	Fluoride	16984-48-8	mg/L	Grab
NL	Molybdenum	7439-98-7	µg/L	Grab
NL	Tributyltin	688-73-3	µg/L	Grab
NL	Alachlor	15972-60-8	µg/L	Grab
NL	Atrazine	1912-24-9	µg/L	Grab
NL	Bentazon	25057-89-0	µg/L	Grab
NL	Carbofuran	1563-66-2	µg/L	Grab
NL	2,4-D	94-75-7	µg/L	Grab
NL	Dalapon	75-99-0	µg/L	Grab
NL	1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	µg/L	Grab
NL	Di(2-ethylhexyl)adipate	103-23-1	µg/L	Grab
NL	Dinoseb	88-85-7	µg/L	Grab
NL	Diquat	85-00-7	µg/L	Grab
NL	Endothal	145-73-3	µg/L	Grab
NL	Ethylene Dibromide (EDB)	106-93-4	µg/L	Grab
NL	Methoxychlor	72-43-5	µg/L	Grab
NL	Molinate (Ordram)	2212-67-1	µg/L	Grab
NL	Oxamyl	23135-22-0	µg/L	Grab
NL	Picloram	1918-02-1	µg/L	Grab
NL	Simazine (Princep)	122-34-9	µg/L	Grab
NL	Thiobencarb	28249-77-6	µg/L	Grab
NL	2,4,5-TP (Silvex)	93-72-1	µg/L	Grab
NL	Chlorpyrifos	2921-88-2	µg/L	Grab
NL	Diazinon	333-41-5	µg/L	Grab
NL	Acetaldehyde	75-07-0	µg/L	Grab
NL	Acrylamide	79-06-1	µg/L	Grab

CTR Number	Other Constituents of Concern	CAS Number	Units	Effluent Sample Type
NL	Formaldehyde	50-00-0	µg/L	Grab
NL	Pendimethalin	40487-42-1	µg/L	Grab

5. **Table E-24 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table E-24:

    a. **Applicable to All Parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

    b. **Grab Samples.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.

    c. **Redundant Sampling.** The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Table E-7 through Table E-20, with the exception of hardness which shall be sampled concurrently with the hardness-dependent metals (cadmium, chromium III, copper, lead, nickel, silver, and zinc).

    d. **Concurrent Sampling.** Effluent and receiving water sampling shall be performed at approximately the same time, as feasible, on the same date.

    e. **Sample Type.** All receiving water samples shall be taken as grab samples. Effluent samples shall be taken as described in Table E-24.

    f. **Bis (2-ethylhexyl) phthalate.** In order to verify if bis (2-ethylhexyl) phthalate is truly present, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant.

    g. **Total Mercury and Methyl Mercury.** Unfiltered methyl mercury and total mercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, for collection of equipment blanks (section 9.4.4.2). The analysis of methyl mercury and total mercury shall be by U.S. EPA method 1630 and1631 (Revision E), respectively, with a reporting limit of 0.05 ng/L for methyl mercury and 0.5 ng/L for total mercury.

    h. **Ammonia (as N).** Sampling is only required in the upstream receiving water.

    i. **Chlorpyrifos and Diazinon** shall be sampled using U.S. EPA Method 625M, Method 8141, or equivalent GC/MS method with a lower Reporting Limit than the Basin Plan Water Quality Objectives of 0.015 µg/L and 0.1 µg/L for chlorpyrifos and diazinon, respectively.

    j. **Volatile Organic Compounds.** Volatile organic compounds shall be analyzed using a test method with a reporting level no greater than 0.5 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

k. **N-Nitrosodimethylamine (NDMA).** N-Nitrosodimethylamine shall be analyzed using a test method with a reporting level no greater than 0.002 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

l. **Perchlorate.** Analysis for perchlorate shall be by EPA Methods 314.0 or 314.1, or an equivalent method approved by the Regional Board with a reporting level no greater than 4.0 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

m. **Semi-volatile Organic Compounds.** Semi-volatile organic compounds shall be analyzed using a test method with a reporting level no greater than 5 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

n. **1,4-Dioxane.** 1,4-Dioxane shall be analyzed using a test method reporting level no greater than 3 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

o. **Pendimethalin.** Pendimethalin shall be analyzed using a test method with a reporting level no greater than 10 µg/L. All concentrations between the method detection limit and reporting level shall be reported as detected but not quantifiable (DNQ).

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

2. Upon written request of the Central Valley Water Board, the Discharger shall submit a summary monitoring report. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).

3. **Compliance Time Schedules.** For compliance time schedules included in the Order, the Discharger shall submit to the Central Valley Water Board, on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the compliance time schedule.

4. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act" of 1986.

5. **Within 24-hours** after the Discharger has received information that its discharge exceeds effluent limitations, or if operational monitoring of the treatment facilities indicates that there is a potential for effluent limitations to be exceeded, the Discharger shall notify the Board, City of Sacramento Department of Utilities, the Freeport Regional Water Authority and Carmichael Water District. Arden-Cordova Water Service and the Bureau of Reclamation shall be notified if the discharge that is in violation is to Alder Creek, tributary to Lake Natoma.

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly, quarterly, semiannual, and annual SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. 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. Monthly SMRs are required even if there is no discharge. If no discharge occurs during the month, the monitoring report must be submitted stating that there has been no discharge.

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

Table E-25. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
1/Month	Permit effective date	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
1/Quarter	Permit effective date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	1 May 1 August 1 November 1 February of following year
2/Year	Permit effective date	1 January through 30 June 1 July through 31 December	1 August 1 February of following year
1/Year	Permit effective date	1 January through 31 December	1 February of following year

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current laboratory's Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

   The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

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

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

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

   c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

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

data derived from extrapolation beyond the lowest point of the calibration curve.

5. **Multiple Sample Data.** When determining compliance with an AMEL 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.

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.

    c. The Discharger shall attach all final laboratory reports from all contracted commercial laboratories, including quality assurance/quality control information, with all its SMRs for which sample analyses were performed.

7. The Discharger shall submit in the SMRs calculations and reports in accordance with the following requirements:

    a. **Calendar Annual Average Limitations.** For constituents with effluent limitations specified as "calendar annual average" (acetaldehyde) the Discharger shall report the calendar annual average in the December SMR. The calendar annual average shall be calculated as described in WDR section VII.C.

C. Discharge Monitoring Reports (DMRs)

1. DMRs are U.S. EPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal will be in addition to electronic SMR submittal. Information about electronic DMR submittal (http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring/) is available on the Internet.

D. Other Reports

1. **Analytical Methods Report.** The Discharger shall complete and submit an Analytical Methods Report, electronically via CIWQS submittal, by the due date shown in the Technical Reports Table E-26. The Analytical Methods Report shall include the following for each constituent to be monitored in accordance with this Order: 1) applicable water quality objective, 2) reporting level (RL), 3) method detection limit (MDL), and 4) analytical method. The analytical methods shall be sufficiently sensitive with RLs consistent with the SSM Rule per 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv), and with the Minimum Levels (MLs) in the SIP, Appendix 4. The "Reporting Level or RL" is synonymous with the "Method Minimum Level" described in the SSM Rule. If an RL is not less than or equal to the applicable water quality objective for a constituent, the Discharger shall explain how the proposed analytical method complies with the SSM Rule as outlined above in Attachment E, section I.F. Central Valley Water Board staff will provide a tool with the permit's Notice of Adoption to assist the Discharger in completing this requirement. The tool will include the constituents and associated applicable water quality objectives to be included in the Analytical Methods Report.

2. **Annual Operations Report.** The Discharger shall submit a written report to the Central Valley Water Board, electronically via CIWQS submittal, containing the following by the due date in the Technical Reports Table E-26:

    a. The names, certificate grades, and general responsibilities of all persons employed at the Facility.

b. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.

c. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.

d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.

e. The Discharger may also be requested to submit an annual report to the Central Valley Water Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

3. **Report of Waste Discharge (ROWD).** For the 5-year permit renewal, the Discharger shall submit a written report to the Central Valley Water Board, electronically via CIWQS submittal, containing, at minimum, the following by the due date in the Technical Reports Table E-26:

   a. Report of Waste Discharge (Form 200);

   b. NPDES Form 1;

   c. NPDES Form 2E; and

   d. **Most Sensitive Species Screening.** The Discharger shall perform subsequent species sensitivity screening to re-evaluate the most sensitive species for chronic whole effluent toxicity testing in accordance with MRP section V.G and results submitted with the ROWD.

4. **Technical Report Submittals.** This Order includes requirements to submit a ROWD, special study technical reports, progress reports, and other reports identified in the MRP (hereafter referred to collectively as “technical reports”). The Technical Reports Table E-26 below summarize all technical reports required by this Order and the due dates for submittal. All technical reports shall be submitted electronically via CIWQS submittal. Technical reports should be uploaded as a PDF, Microsoft Word, or Microsoft Excel file attachment.

Table E-26. Technical Reports

Report #	Technical Report	Due Date	CIWQS Report Name
Intentionally left blank	Standard Reporting Requirements	Intentionally left blank	Intentionally left blank
1	Report of Waste Discharge	31 May 2030	ROWD
2	Analytical Methods Report	1 September 2026	MRP X.D.1
3	Analytical Methods Report Certification	1 April 2027	MRP IX.A.3
4	Annual Operations Report	1 February 2027	MRP X.D.2
5	Annual Operations Report	1 February 2028	MRP X.D.2
6	Annual Operations Report	1 February 2029	MRP X.D.2
7	Annual Operations Report	1 February 2030	MRP X.D.2
8	Annual Operations Report	1 February 2031	MRP X.D.2
Intentionally left blank	Other Reports	Intentionally left blank	Intentionally left blank
9	2,3,7,8-TCDD and Other Dioxin and Furan Congeners Source Evaluation and Minimization Plan	31 May 2027	WDR VI.C.3.a

ATTACHMENT F – FACT SHEET

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Tables

ATTACHMENT F – FACT SHEET

As described in section II.C of this Order, the Central Valley Water Board incorporates this Fact Sheet as findings of the Central Valley Water Board supporting the issuance of this Order. This Fact Sheet discusses the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

Waste Discharge ID:	5A342000006
CIWQS Facility Place ID:	232546
Discharger:	Aerojet Rocketdyne, Inc.
Name of Facility:	Groundwater Extraction and Treatment Systems, ARGET, GET EF, GET HA, GET J, GET KA, GET LA, GET LB, GET AB, WRND GET, Sailor Bar Park GET, Cooling Tower 20019, Golden State Water Wells, and Low Threat Discharges
Facility Address:	2001 Aerojet Road
Facility City, State Zip:	Rancho Cordova, CA 95742
Facility County:	Sacramento County
Facility Contact, Title and Phone Number:	Lee Hovey, Senior Engineer, Environmental Remediation, (916) 351-8540
Authorized Person to Sign and Submit Reports:	Chris Fennessy, Director, Environmental Remediation, (916) 355-3341
Mailing Address:	Same as Facility Address
Billing Address:	Same as Facility Address
Type of Facility:	Groundwater Treatment
Major or Minor Facility:	Minor
Threat to Water Quality:	2
Complexity:	B
Pretreatment Program:	No
Recycling Requirements:	NA

Facility Permitted Flow:	Maximum Daily Discharge Flow: ARGET – 5.04 mgd, GET EF – 11.52 mgd, GET HA – 3.9 mgd, GET J – 6.75 mgd, GET KA– 5.11 mgd, GET LA – 2.88 mgd, GET LB – 1.44 mgd, Sailor Bar Park GET - 0.58 mgd, AC-18 – 2.59 mgd, AC-25 – 1.3 mgd, GET AB – 5.76 mgd, WRND GET – 2.88 mgd, Cooling Tower 20019 - 0.0008 mgd, Low Threat Discharges - 0.01 mgd per monitor well, 3.6 mgd per aquifer test of water supply well start up or shut down, and 14.4 mgd four-day total maximum per aquifer test of water supply well start up or shut down
Facility Design Flow:	Same as Facility Permitted Flow
Watershed:	American River and Sacramento River watersheds
Receiving Water:	American River, Buffalo Creek, Morrison Creek, Sailor Bar Park Pond, and Alder Creek
Receiving Water Type:	Inland Surface Water

A. The Aerojet Rocketdyne, Inc. (hereinafter Discharger) is the owner and operator of groundwater extraction and treatment systems ARGET, GET EF, GET HA, GET J, GET KA, GET LA, GET LB, GET AB, WRND GET, Sailor Bar Park GET, and Low Threat Discharges and Cooling Tower 20019. Golden State Water Company (hereinafter Golden State) is the owner and operator of AC-18 Well System and AC-25 Well System. The Discharger operates treatment units at AC-18 and AC-25 Well Systems to treat Golden State's drinking water wells that have been contaminated by the Discharger's past rocket manufacturing and testing operations. ARGET, GET EF, GET HA, GET J, GET KA, GET LA, GET LB, GET AB, WRND GET, Sailor Bar Park GET, Cooling Tower 20019, AC-18, and AC-25, and Low Threat Discharges is hereinafter the "Facility".

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Facility discharges treated groundwater to American River tributary to the Sacramento River, Buffalo Creek tributary to the American River, Morrison Creek tributary to the Sacramento River, Sailor Bar Park Pond, and Alder Creek tributary to Lake Natoma are waters of the United States within the Sacramento River and American River watersheds. The Discharger was previously regulated by Order R5-2020-0051-003 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0083861 adopted on 16 October 2020 and expires on 31 October

2025 and administratively extended on 5 September 2025. Attachment B provides a map of the area around the Facility. Attachment C provides flow schematics of the facilities.

C. When applicable, state law requires dischargers to file a petition with the State Water Board, Division of Water Rights and receive approval for any change in the point of discharge, place of use, or purpose of use of treated wastewater that decreases the flow in any portion of a watercourse. The State Water Board retains separate jurisdictional authority to enforce any applicable requirements under Water Code section 1211. This is not an NPDES permit requirement.

D. The Discharger filed a Report of Waste Discharge (ROWD) and submitted an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit on 25 October 2024. Supplemental information was requested on 29 August 2025 and received on 29 August 2025. The application was deemed complete on 5 September 2025.

E. Regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 2 of this Order limits the duration of the discharge authorization. Under 40 C.F.R. section 122.6(d), States authorized to administer the NPDES program may administratively continue State-issued permits beyond their expiration dates until the effective date of the new permits, if State law allows it. Pursuant to California Code of Regulations (CCR), title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

II. FACILITY DESCRIPTION

The Discharger operates fourteen groundwater extraction and treatment systems that discharge treated groundwater to surface waters. The maximum daily design flow capacity of the facilities are 5.04 mgd for ARGET, 11.52 mgd for GET EF, 3.9 mgd for GET HA, 6.75 mgd for GET J, 5.11 mgd for GET KA, 2.88 mgd for GET LA, 1.44 mgd for GET LB, 1.3 mgd for AC-25, 2.59 mgd for AC-18, 5.76 mgd for GET AB, 2.88 mgd for WRND GET, 0.0008 mgd for Cooling Tower 20019, 0.58 mgd for Sailor Bar Park GET, and 0.01 mgd per monitor well; 3.6 mgd per aquifer test of water supply well start up or shut down; and 14.4 mgd four-day total maximum per aquifer test of water supply well start up or shut down for Low Threat Discharges.

A. Description of Treatment Systems and Biosolids Treatments and Controls

1. **Treatment Systems.** The treatment systems at the facilities use bag filters on the influent, ion exchange or biological reduction for perchlorate removal, granular activated carbon (GAC) and/or air stripping and/or ultraviolet (UV) and hydrogen peroxide for the removal of volatile organics compounds (VOCs), and UV and hydrogen peroxide for the removal of N-Nitrosodimethylamine (NDMA). GET EF, the only facility using biological reduction for removal of perchlorate,

also includes a clarifier, sand filter and screw press for the removal and dewatering of spent waste solids from the perchlorate treatment units. A cationic emulsion-based polyamide polymer used in drinking water treatment is used to assist in the dewatering of the solids in the screw press. The residual liquid from the screw press is discharged back to the influent of the clarifier and the dried waste solids are collected in a container and sent to a landfill for disposal.

2. **VOCs.** VOCs can be easily removed from the extracted groundwater using a variety of treatment processes. The Discharger uses air-stripping, carbon adsorption (GAC) and ultraviolet oxidation in different combinations to remove the VOCs. At GET facilities that have NDMA treatment, the Discharger uses ultraviolet oxidation and hydrogen peroxide to destroy a majority of the VOCs and utilizes air stripping or GAC to remove residual VOCs. For facilities that do not have NDMA treatment, either air stripping or GAC alone is utilized. Spent GAC is trucked to a permitted destruction facility.
3. **Perchlorate.** Perchlorate is removed from the extracted groundwater using either biological reduction or ion-exchange. Biological reduction is performed by growing bacteria on carbon or sand in a fluidized bed reactor. A carbon source (e.g., ethanol) is injected into the influent to provide food for the bacteria. The bacteria will remove oxygen and nitrate prior to destroying the perchlorate. Waste solids are generated as bacteria material is removed from the system. The waste solids are separated from the water using continuously cleaning sand filters. The separated waste solids flow in grey water toward a clarifier. Prior to arriving at the clarifier, a flocculant, ferric chloride, is added to the grey water. The clarifier allows the thickening and settling of the waste solids. The solids collected in the clarifier are either dewatered using a screw-press and hauled to a permitted disposal facility or trucked to the sanitary sewer and the supernatant from the clarifier is returned to the treatment process. The ion-exchange process uses a perchlorate-specific ion exchange resin that is disposed of when the resin's capacity for taking up perchlorate is exhausted. The resin is then replaced with fresh resin and the spent resin taken to a permitted disposal facility.
4. **NDMA.** Removal of NDMA is accomplished using ultraviolet light oxidation in combination with hydrogen peroxide. This process is highly energy intensive and concentration dependent. If VOCs are present in the water, the majority of the VOCs are oxidized in this process.

B. Description of Groundwater Extraction and Treatment (GET) Systems

1. **ARGET (Discharge Point 001).** The ARGET treatment facility is located on the Aerojet site. The ARGET facility utilizes a bag filter for sediment removal, ion-exchange for perchlorate removal, and an air stripper for VOC removal. Treated groundwater from ARGET is discharged to Buffalo Creek at Discharge Point 001. The ARGET facility has a design flow of 5.04 MGD.
2. **GET EF (Discharge Point 002).** The GET EF treatment facility is located on the Aerojet site. GET EF utilizes bag filters for sediment removal, a fluidized bed

reactor (FBR) for perchlorate removal, UV and hydrogen peroxide for NDMA removal, and UV oxidation and air stripping for VOC removal. The FBR system also includes a clarifier, sand filter, and screw press for the removal and dewatering of spent waste solids from the FBR. A cationic emulsion-based polyamide polymer used in drinking water treatment is used to assist in the dewatering of the solids in the screw press. The residual liquid from the screw press is discharged back to the influent of the clarifier and the dried waste solids are collected in a container and sent to a landfill for disposal. Ion-exchange vessels were added to GET EF to treat groundwater from some extraction wells into GET EF and to expand the treatment capacity of GET EF. Treated groundwater from GET EF is discharged to Buffalo Creek at Discharge Point 002. The GET EF facility has a design flow of 11.52 MGD.

3. **GET HA (Discharge Point 004).** The GET HA treatment facility is located near the North-central side of Mather Air Force Base. GET HA utilizes bag filters for sediment removal, ion exchange for perchlorate removal, and GAC for VOC removal. Treated groundwater from GET HA is discharged to Morrison Creek at Discharge Point 004. The GET HA facility has a design flow of 3.9 MGD.
4. **GET J (Discharge Point 005).** The GET J treatment facility is located on Pyrites Way in Gold River. GET J utilizes bag filters and green sand filters for sediment removal, ion exchange for perchlorate removal, UV and hydrogen peroxide for NDMA and VOC removal, and GAC for VOC removal. Treated groundwater from GET J is discharged to Buffalo Creek at Discharge Point 005. The GET J facility has a design flow of 6.75 MGD.
5. **GET KA (Discharge Point 007).** The GET KA treatment facility is located on Coloma Road in Rancho Cordova. GET KA utilizes bag filters for sediment removal, ion exchange for perchlorate removal and UV and hydrogen peroxide for NDMA and VOC removal. Treated groundwater from GET KA is discharged to American River at Discharge Point 007. The GET KA facility has a design flow of 5.11 MGD.
6. **GET LA (Discharge Point 008**). This facility is not currently in operation. The GET LA treatment facility is located near Ancil Hoffman Park in Carmichael. When operating, GET LA utilizes a bag filter for sediment removal and UV and hydrogen peroxide for NDMA removal. If perchlorate and/or VOCs are detected in the influent to GET LA, the Discharger plans to add ion exchange for perchlorate removal and GAC for VOC removal. Treated groundwater from GET LA is discharged to American River at Discharge Point 008. The GET LA facility has a design flow of 2.88 MGD.
7. **GET LB (Discharge Point 009).** The GET LB treatment facility is located adjacent to the Carmichael Water District Water Treatment Plant. GET LB utilizes a bag filter for sediment removal and UV for NDMA removal. If perchlorate and/or VOCs are detected in the influent to GET LB, the Discharger plans to add ion exchange for perchlorate removal and GAC for VOC removal. The GAC treatment unit is in place but is currently empty. Treated groundwater from GET

LB is discharged to American River at Discharge Point 009. The GET LB facility has a design flow of 1.44 MGD.

8. **Sailor Bar Park GET (Discharge Point 010).** The Sailor Bar Park GET treatment facility is located in Sailor Bar Park. Sailor Bar Park GET utilizes GAC for VOC removal. Treated groundwater from Sailor Bar Park GET is discharged to Sailor Bar Park Pond at Discharge Point 010. The Sailor Bar Park extraction wells are connected to the ARGET facility so only the amount of treated groundwater necessary to keep Sailor Bar Park Pond full is sent through the Sailor Bar Park GET facility for treatment and discharge into Sailor Bar Park Pond. The remainder of the extracted groundwater is sent to ARGET for treatment and discharge to Buffalo Creek at Discharge Point 001. The Sailor Bar Park GET facility has a design flow of 0.58 MGD.

9. **Low Threat Discharges (Discharge Point 012).** The Discharger develops and purges wells prior to sampling and conducts aquifer tests on extraction and supply wells to determine aquifer characteristics to allow GET systems to be designed. These activities take place over vast areas on and off the Discharger's property. The purge water is generally low in volume (100's – 5,000 gallons) and is provided treatment prior to discharge via mobile treatment units if needed. Water from the extraction and supply wells is captured in a container and sampled for constituents of concern. Treatment is provided on the discharges to remove the pollutants of concern and discharged to the storm drain where it will make its way to the receiving waters. If treatment is not practical, the water is contained and discharged through the sanitary sewer system as authorized by the Discharger's wastewater discharge permit with the Sacramento Regional County Sanitation District (SRCSD). The design flow for this type of discharge is 0.01 MGD per well and 3.6 MGD per aquifer test. The total maximum allowed per aquifer test is 14.4 MGD based on an aquifer test of 2,500 gallons per minute for four days.

10. **AC-18 (Discharge Point 014).** Golden State's drinking water supply well AC-18 is located on International Drive in Rancho Cordova. AC-18 utilizes a sand separator for sediment removal and ion exchange for perchlorate removal. This well will only be operated on-demand and so the discharge to the storm drain typically occurs during well startup and shutdown to minimize pressure issues within the distribution system. Treated groundwater from AC-18 is discharged to Morrison Creek at Discharge Point 014. AC-18 has a design flow of 2.59 MGD.

11. **GET AB (Discharge Point 016).** The GET AB treatment facility is located on the Aerojet site. GET AB utilizes bag filters for sediment removal, ion exchange for perchlorate removal, UV and hydrogen peroxide for NDMA removal, and UV oxidation and air stripping for VOC removal. Treated groundwater from GET AB is discharged to Buffalo Creek at Discharge Point 016 or to Aerojet's industrial supply system for use in Aerojet's various industrial operations. GET AB no longer discharges to Teichert Aggregate Processing Plant. Treated groundwater from GET AB may also be discharged to Rebel Hill Ditch for infiltration monitored by Monitoring Location LND-001 if discharge to Buffalo Creek is not available;

these discharges rarely occur. Treated groundwater from GET AB is first sent to Aerojet's industrial supply for reuse and the remainder is sent to Buffalo Creek for discharge. GET AB has a design flow of 5.76 MGD.

12. **WRND GET (Discharge Point 017).** The WRND GET treatment facility is located across from Teichert Aggregate Processing Plant (Teichert) on Grant Line Road. WRND GET utilizes bag filters for sediment removal, ion exchange for perchlorate removal, and an air stripper for VOC removal. Treated groundwater originating from wells on Teichert's property and treated at WRND GET is either provided to Teichert for use in its aggregate processing operations and dust suppression at its Grant Line plant or sent to GET AB's discharge well. GET AB's discharge well directs water to either Buffalo Creek or Aerojet's industrial supply as described for Discharge Point 016. Treated groundwater from WRND GET may also be discharged to Rebel Hill Ditch for infiltration monitored by Monitoring Location LND-001 if discharge to Buffalo Creek is not available; these discharges rarely occur. WRND GET has a design flow of 2.88 MGD.

    The Discharger is in the process of installing UV and hydrogen peroxide for NDMA removal at WRND GET. Once these treatment units are installed, treated groundwater from WRND GET will begin discharging to Morrison Creek at Outfall 010 in addition to the discharge locations described above. See the Planned Changes in section II.F of this Fact Sheet for further information.

13. **Cooling Tower 20019 (Discharge Point 019).** Cooling Tower 20019 is located on the Aerojet site. Cooling Tower 20019 is used for space cooling of the active office building, Building 20019. Treatment chemicals are used in Cooling Tower 20019 to prevent scale and solids build-up and control algae and biological growth. Potable water is used for blowdown water of Cooling Tower 20019. Discharges from Cooling Tower 20019 are discharged to Buffalo Creek at Discharge Point 019. Cooling Tower 20019 discharges up to 0.0008 MGD.

14. **AC-25 (Discharge Point 020).** Golden State's drinking water supply well AC-25 is located on Coloma Road in Rancho Cordova. AC-25 utilizes a sand separator for sediment removal and ion exchange for perchlorate removal. Discharges from AC-25 occur in the same manner as described under Discharge Point 014 for AC-18 above. Treated groundwater from AC-25 is discharged to American River at Discharge Point 020. AC-25 has a design flow of 1.3 MGD.

C. Discharge Points and Receiving Waters

1. The Facility is located in T9N, R7E, MDB&M, as shown in Attachment B, a part of this Order.

2. Treated groundwater is discharged at the outfalls described in Table F-2 below:

Table F-2. Outfall Locations

Outfall	Effluent Description	Outfall Latitude (North)	Outfall Longitude (West)	Receiving Water
Outfall 001	Treated Groundwater from ARGET, GET EF, GET J, GET AB, WRND GET, Cooling Tower 20019	38º, 37', 60"	121º, 16', 07"	Buffalo Creek to American River
Outfall 002	Treated Groundwater from GET LA	38º, 36', 29"	121º, 18', 33"	American River
Outfall 002A	Treated Groundwater from GET LB	38º, 37', 31"	121º, 18', 13"	Drainage Ditch to American River
Outfall 004	Treated Groundwater from GET KA and AC-25	38º, 36', 07"	121º, 19', 02"	Drainage Ditch to American River
Outfall 006	Treated Groundwater from GET HA and AC-18	38º, 32', 18"	121º, 18', 59"	Drainage Ditch to Morrison Creek
Outfall 007	Treated Groundwater from Sailor Bar Park GET	38º, 37', 59"	121º, 14', 21"	Sailor Bar Park Pond
Outfall 008	Treated Groundwater from Various GETs	38º, 38', 6"	121º, 13', 13"	American River at Natomas Stilling Basin
Outfall 009	Treated Groundwater from Various GETs	38º, 38', 12"	121º, 12', 11"	Alder Creek
Outfall 010	Treated Groundwater from WRND GET	38º, 34', 58"	121º, 11', 14"	Morrison Creek

3. Buffalo Creek, Morrison Creek, Alder Creek, Sailor Bar Park Pond, and American River are waters of the United States within the American River and Sacramento River watersheds.

4. Sacramento County requested during development of a previous permit to allow for the potential discharge from some or all of the GETs covered in this permit to American River at the Natomas Stilling Basin (Outfall 008) and Alder Creek (Outfall 009), to assist in their reuse of the treated groundwater. Discharges of treated groundwater from various GETs to Outfall 008 to the American River at Natomas Stilling Basin and to Outfall 009 to Alder Creek is prohibited pending

completion of acceptable studies of the potential thermal and toxicity impacts on Alder Creek, Lake Natoma, the American River and the Nimbus Fish Hatchery (see WDR section VI.C.2.b).

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

Effluent limitations contained in Order R5-2020-0051-003 for discharges from Discharge Points 001, 002, 004, 005, 007, 008, 009, 010, 012, 014, 016, 017, 019, and 020 (Monitoring Locations M-001, M-002, M-004, M-005, M-007, M-008, M-009, M-010, M-012, M-014, M-016, M-017, M-019, and M-020) and representative monitoring data from 1 April 2022 through 31 March 2025 from the term of Order R5-2020-0051-003 are as follows:

Table F-3. Historic Effluent Limitations

Discharge Point	Parameter	Units	Historic Effluent Limitations	Highest Average Monthly Discharge	Highest Daily Discharge
001	1,1-Dichloroethane	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
001	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
001	1,4-Dioxane	µg/L	AMEL 3 MDEL 6	3	4
001	Chloroform	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
001	cis-1,2-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
001	N-Nitrosodimethylamine	µg/L	AMEL 0.002 MDEL 0.01	0.0021	ND
001	Perchlorate	µg/L	AMEL 4 MDEL 6	4	4
001	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	7.62-8.6
001	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
001	Tetrachloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
002	1,1-Dichloroethane	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
002	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
002	1,2-Dichloroethane	µg/L	AMEL 0.38 MDEL 0.5	ND	ND

Discharge Point	Parameter	Units	Historic Effluent Limitations	Highest Average Monthly Discharge	Highest Daily Discharge
002	1,4-Dioxane	µg/L	AMEL 3 MDEL 6	0.6	0.6
002	Acetaldehyde	µg/L	Annual Average 7.3	--	5.8
002	Acrylamide	µg/L	AMEL 0.05 MDEL 0.05	0.10	0.10
002	Chloroform	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
002	cis-1,2-Dichloroethylene	µg/L	AMEL 1.5 MDEL 1.5	ND	ND
002	Formaldehyde	µg/L	AMEL 50 MDEL 50	15	15
002	N-Nitrosodimethylamine	µg/L	AMEL 0.002 MDEL 0.01	0.0049	0.0049
002	Perchlorate	µg/L	AMEL 6 MDEL 10	3	3
002	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	7.61-8.4
002	Tetrachloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
002	Trichloroethylene	µg/L	AMEL 1.5 MDEL 1.5	ND	ND
004	Chloroform	µg/L	AMEL 2 MDEL 5	0.20	0.20
004	Perchlorate	µg/L	AMEL 4 MDEL 6	5	5
004	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	7.21-8.33
004	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	0.30	0.30
005	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
005	Chloroform	µg/L	AMEL 3 MDEL 5	1.5	2
005	cis-1,2-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
005	N-Nitrosodimethylamine	µg/L	AMEL 0.007 MDEL 0.01	0.00087	0.00087
005	Perchlorate	µg/L	AMEL 4 MDEL 6	ND	ND
005	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	7.2-8.46

Discharge Point	Parameter	Units	Historic Effluent Limitations	Highest Average Monthly Discharge	Highest Daily Discharge
005	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
007	Chloroform	µg/L	AMEL 0.5 MDEL 0.7	0.9	0.9
007	N-Nitrosodimethylamine	µg/L	AMEL 0.007 MDEL 0.01	0.0032	0.0032
007	Perchlorate	µg/L	AMEL 4 MDEL 6	3	3
007	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	7.27-8.32
007	Tetrachloroethylene	µg/L	AMEL 0.5 MDEL 0.7	0.8	0.8
007	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	0.7	0.7
008	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	--	--
008	N-Nitrosodimethylamine	µg/L	AMEL 0.007 MDEL 0.01	--	--
008	Perchlorate	µg/L	AMEL 4 MDEL 6	--	--
008	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	--
008	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	--	--
009	N-Nitrosodimethylamine	µg/L	AMEL 0.007 MDEL 0.01	0.0027	0.0027
009	Perchlorate	µg/L	AMEL 4 MDEL 6	ND	ND
009	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	7.22-9.11
009	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
010	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	0.5	0.5
010	cis-1,2-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	0.5	0.5
010	Perchlorate	µg/L	AMEL 4 MDEL 6	ND	ND
010	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	7.01-9.18

Discharge Point	Parameter	Units	Historic Effluent Limitations	Highest Average Monthly Discharge	Highest Daily Discharge
010	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
012	1,4-Dioxane	µg/L	Total Max 10	--	1.6
012	N-Nitrosodimethylamine	µg/L	Total Max 0.02	--	0.0027
012	Perchlorate	µg/L	Total Max 12	--	5.1
012	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	5.94-8.33
012	Volatile Organics	µg/L	Instantaneous Max 5.0	--	3.5
014	Perchlorate	µg/L	AMEL 4 MDEL 6	--	--
014	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	--
014	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	--	--
016	1,1-Dichloroethane	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
016	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
016	1,2-Dichloroethane	µg/L	AMEL 0.38 MDEL 0.5	ND	ND
016	Chlorine Residual	mg/L	AMEL 0.01 MDEL 0.02	0.01	0.01
016	Chloroform	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
016	cis-1,2-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
016	Freon 113	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
016	N-Nitrosodimethylamine	µg/L	AMEL 0.003 MDEL 0.01	0.0076	0.0076
016	Perchlorate	µg/L	AMEL 4 MDEL 6	3	3
016	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	7.6-8.37
016	Tetrachloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
016	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
017	1,1-Dichloroethane	µg/L	AMEL 0.5 MDEL 0.7	ND	ND

Discharge Point	Parameter	Units	Historic Effluent Limitations	Highest Average Monthly Discharge	Highest Daily Discharge
017	Chloroform	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
017	cis-1,2-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
017	N-Nitrosodimethylamine	µg/L	AMEL 0.003 MDEL 0.01	0.002	0.002
017	Perchlorate	µg/L	AMEL 4 MDEL 6	2	2
017	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	7.68-8.64
017	Tetrachloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
017	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	ND	ND
019	Copper, Total	mg/L	MDEL 0.7	--	0.87
019	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	--
020	Chloroform	µg/L	AMEL 3.0 MDEL 5.0	--	--
020	Perchlorate	µg/L	AMEL 4 MDEL 6	--	--
020	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	--	--
020	Tetrachloroethylene	µg/L	AMEL 5.0 MDEL 5.0	--	--
020	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	--	--

Table F-3 Notes:

1. **pH.** pH is listed under the highest daily discharge as a range of values from instantaneous minimum to instantaneous maximum.
2. **ND.** Abbreviation for not detected.
3. **Discharge Point 002 Acetaldehyde.** The maximum annual average effluent result for acetaldehyde at Discharge Point 002 is listed under the highest daily discharge.
4. **Discharge Point 008.** GET LA is currently inactive and no discharges occurred under Discharge Point 008 during the term of Order R5-2020-0051-003.
5. **Discharge Point 012.** The total maximum effluent discharges at Discharge Point 012 are listed under the highest daily discharge.

6. **Discharge Point 014.** AC-18 only operated as described for Discharge Point 012 and no discharges occurred under Discharge Point 014 during the course of Order R5-2020-0015-003.
7. **Discharge Point 019 pH.** pH monitoring for Discharge Point 019 was not required in Order R5-2020-0015-003.
8. **Discharge Point 020.** AC-25 only operated as described for Discharge Point 012 and no discharges occurred under Discharge Point 020 during the course of Order R5-2020-0015-003.

E. Compliance Summary

1. The Central Valley Water Board issued Administrative and Civil Liability (ACL) Complaint R5-2023-0522 on 25 May 2023, which proposed to assess a civil liability of $21,000 against the Discharger for effluent violations for acetaldehyde (7 violations) and pH (1 violation) under Order R5-2025-0051-003. The Discharger paid the mandatory minimum penalty of $21,000.

2. The Central Valley Water Board issued ACL Complaint R5-2024-0517 on 27 June 2024, which proposed to assess a civil liability of $27,000 against the Discharger for effluent violations for pH (3 violations), acetaldehyde (6 violations), acrylamide (2 violations), tetrachloroethylene (1 violation), and copper (1 violation) under Order R5-2025-0051-003. The Discharger paid the mandatory minimum penalty of $27,000.

3. The Central Valley Water Board issued ACL Complaint R5-2025-0515 on 15 May 2025, which proposed to assess a civil liability of $12,000 against the Discharger for effluent violations for acetaldehyde (4 violations) and chloroform (1 violation) under Order R5-2025-0051-003. The Discharger paid the mandatory minimum penalty of $12,000.

F. Planned Changes

In order to more easily reuse the treated groundwater, Discharge Point 004 (GET HA) may be redirected to the Boyd Station Channel for ultimate discharge to the American River. Revision of the permit will be necessary prior to taking Discharge Point 004 to the Boyd Station Channel. This change is still planned but not expected to occur during the permit term.

The discharges from various GETs may also be redirected to Outfall 008 at the Natomas Stilling Basin or to Outfall 009 at Alder Creek. Prior to doing so, a thermal impact study, including a mixing zone study and an assessment of the potential impacts to Alder Creek, Lake Natoma, and the Nimbus Fish Hatchery will need to be completed that demonstrates that there are no adverse impacts with discharging to the new location(s) (see WDR section VI.C.2.b). Discharge of treated groundwater from various GETs to Outfall 008 and 009 is prohibited until the Discharger meets the requirements of WDR section VI.C.6.b. These changes are still planned but are

not expected to occur during the permit term.

The Discharger is evaluating the addition of UV treatment to remove NDMA because that pollutant is in groundwater approaching the extraction wells feeding the WRND GET facility. Once the Discharger installs NDMA treatment units at WRND GET, discharge to Morrison Creek at Outfall 010 will commence. Discharge of treated groundwater from WRND GET to Outfall 010 is prohibited until the Discharger meets the requirements of WDR section VI.C.6.c and is approved by the Central Valley Water Board. This addition is planned to occur during the permit term.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this Facility to surface waters.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code. Additionally, the adoption of land discharge requirements for the Facility constitutes permitting of an existing facility that is categorically exempt from the provisions of CEQA pursuant to CCR, title 14, section 15301.

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

1. **Water Quality Control Plans.** Requirements of this Order specifically implement the applicable Water Quality Control Plans.

    a. **Basin Plan.** The Central Valley Water Board adopted a Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fifth Edition, May 2018 (hereinafter 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 plan. Requirements in this Order implement the Basin Plan.

    The Basin Plan at section 2.1 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams.

The Basin Plan in Table 2-1, section 2, does not specifically identify beneficial uses for Buffalo Creek and Alder Creek, but does identify present and potential uses for the American River, to which Buffalo Creek and Alder Creek are tributary. The Basin Plan in Table 2-1, section 2, does not specifically identify beneficial uses for Morrison Creek, but does identify present and potential uses for the Sacramento River within the Sacramento San Joaquin Delta, to which Morrison Creek is tributary. The Basin Plan in Table 2-1, section 2, does not specifically identify beneficial uses for Sailor Bar Park Pond, but does identify present and potential uses for the American River, to which Sailor Bar Park Pond is potentially a tributary through groundwater. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Thus, beneficial uses applicable to Buffalo Creek, Alder Creek, American River, Morrison Creek, and Sailor Bar Park Pond are as follows:

Table F-4. Basin Plan Beneficial Uses

Outfall	Receiving Water Name	Beneficial Use(s)
Outfall 001	Buffalo Creek	Existing: Municipal and domestic water supply (MUN), irrigation and stock watering (AGR), industrial service supply (IND), industrial power (POW), contact (REC-1) and non-contact (REC-2) water recreation, warm freshwater habitat (WARM), cold freshwater habitat (COLD), warm and cold migration (MIGR), warm and cold spawning (SPWN), wildlife habitat (WILD).
Outfall 009	Alder Creek	Existing: MUN, AGR, IND, POW, REC-1, REC-2, WARM, COLD, MIGR, SPWN, WILD.
Outfall 006 and 010	Morrison Creek	Existing: MUN, AGR, industrial process (PROC), REC-1, REC-2, WARM, COLD, MIGR, SPWN, WILD, navigation (NAV).
Outfall 001, 002, 002A, 003, 004, 005, and 008	American River	Existing: MUN, AGR, IND, POW, REC-1, REC-2, WARM, COLD, MIGR, SPWN, WILD.
Outfall 007	Sailor Bar Park Pond	Existing: MUN, AGR, IND, POW, REC-1, REC-2, WARM, COLD, MIGR, SPWN, WILD.

b. **Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.** The Water Quality Control Plan for

Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan) was adopted by the State Water Resources Control Board (State Water Board) on 1 December 2020, under authority provided by Water Code sections 13140 and 13170. Except as otherwise indicated, this ISWEBE Plan establishes provisions for water quality and sediment quality that apply to all inland surface waters, enclosed bays, and estuaries and coastal lagoons of the state, including both waters of the United States and surface waters of the state. The State Water Board rescinded the ISWEBE Plan on 5 October 2021 in Resolution No. 2021-0044. The portions of the ISWEBE Plan, including the Toxicity Provisions, remain in effect as state policy for water quality control.

c. **Statewide Toxicity Provisions.** On December 1, 2020, the State Water Board adopted State Policy for Water Quality Control: Toxicity Provisions (Toxicity Provisions) which established statewide numeric water quality objectives for both acute and chronic toxicity, using the TST, and a program of implementation to control toxicity. On October 5, 2021, the State Water Board adopted a resolution confirming that the Toxicity Provisions were adopted as a State Policy for Water Quality Control, for all inland surface waters, enclosed bays, estuaries, and coastal lagoons of the state, regardless of their status as waters of the United States. The Toxicity Provisions establish a uniform regulatory approach to provide consistent protection of aquatic life beneficial uses and protect aquatic habitats and life from the effects of known and unknown toxicants. The Toxicity Provisions were approved by OAL on April 25, 2022, and by U.S. EPA on May 1, 2023.]

On December 14, 2023, the State Water Board applied for U.S. EPA Region IX review and approval of a limited-use alternative test procedure (ATP), for the use of one-effluent concentration when conducting whole effluent toxicity (WET) testing, pursuant to 40 Code of Federal Regulations section 136.5 (Aug. 28, 2017). The application is specific to acute or chronic WET tests in Table 1 of the application when using the Test of Significant Toxicity (TST) statistical approach (U.S. EPA, 2010) for analyzing the data. The application is being sought for all dischargers or facilities in the State of California and their associated laboratories. The ATP application is still pending with U.S. EPA.

The use of the TST has been the subject of litigation. In December 2024, the Second District Court of Appeal upheld the use of the TST in an NPDES permit in the case Camarillo Sanitary District v. California Regional Water Quality Control Board - Los Angeles Region.

A separate legal challenge to the State Water Board's adoption of the Toxicity Provisions originated in Fresno County Superior Court on July 18, 2022, through a petition for writ of mandate filed by Camarillo Sanitary

District, City of Simi Valley, City of Thousand Oaks, Central Valley Clean Water Association, and Clean Water SoCal (formerly known as Southern California Alliance of Publicly Owned Treatment Works) (Petitioners) . One of the claims was that the Toxicity Provisions was inconsistent with the Clean Water Act. On October 9, 2023, the superior court denied the petition in its entirety.

On December 19, 2023, three of the Petitioners filed a notice of appeal of the Fresno Superior Court's decision upholding the Toxicity Provisions. On August 5, 2025, the Fifth District Court of Appeal issued a published opinion holding that the TST statistical approach, which is an integral component of the Toxicity Provisions, cannot be utilized in NPDES permitting to evaluate WET data because the TST is not an approved method under 40 Code of Federal Regulations Part 136. The Court of Appeal did not, however, disturb the Toxicity Provisions' use of the TST as a part of its water quality objectives. The State Water Board prevailed on all other claims in the litigation. The Court of Appeal's decision became final on September 4, 2025.

On September 15, 2025, the State Water Board filed a petition for review of the Fifth Circuit Court of Appeal's decision with the California Supreme Court. On November 12, 2025, the California Supreme Court granted review. The issues to be briefed and argued are limited to the issues raised in the State Water Board's petition for review.

Pending the California Supreme Court's review, the opinion of the Fifth Circuit Court of Appeal is not binding on the Water Boards. However, the opinion may be cited, not only for its persuasive value, but also for the limited purpose of establishing the existence of a conflict in authority.

In accordance with Water Code sections 13146 and 13247, the Regional Board must fully implement the water quality objectives and their implementation procedures in the Toxicity Provisions. The numeric water quality objectives for chronic and acute toxicity established by the Toxicity Provisions, which are based on the TST, were approved by U.S. EPA and remain in effect. As such, the numeric water quality objectives continue to serve as the applicable federal water quality standards in California.

The Water Boards must also continue to comply with federal Clean Water Act NPDES regulations for determining reasonable potential and establishing applicable water quality-based effluent limitations (WQBELs). NPDES regulations (40 CFR § 122.44(d)(1)(vii)(A)) require that all WQBELs be derived from and comply with all applicable water quality standards. Moreover, although the Toxicity Provisions left in place narrative water quality objectives for aquatic toxicity in regional water board water quality control plans (basin plans), the Toxicity Provisions did

supersede basin plan provisions and portions of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) for implementing narrative water quality objectives. As such, there are currently no basin plan or SIP procedures in effect for implementing narrative water quality objectives to determine reasonable potential as required by 40 CFR § 122.44(d)(1)(ii). As a result, the Regional Board must fully implement all of the Toxicity Provisions.

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on 22 December 1992, and later amended it on 4 May 1995 and 9 November 1999. About forty criteria in the NTR applied in California. On 18 May 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on 13 February 2001. These rules contain federal water quality criteria for priority pollutants.

3. **State Implementation Policy.** On 2 March 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 28 April 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 Central Valley Water Board in the Basin Plan. The SIP became effective on 18 May 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 24 February 2005, that became effective on 13 July 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.

4. **Antidegradation Policy.** Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California") (State Anti-Degradation Policy). The State Anti-Degradation Policy is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. The State Anti-Degradation Policy requires that existing water quality be maintained unless degradation is justified based on specific findings. The Central Valley Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 C.F.R. section 131.12 and the State Anti-Degradation Policy. The Board finds this order is consistent with the Federal and State Water Board antidegradation regulations and policy.

5. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

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

7. **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, sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

8. **Storm Water Requirements.** U.S. EPA promulgated federal regulations for storm water on 16 November 1990 in 40 C.F.R. parts 122, 123, and 124. The NPDES Industrial Storm Water Program does not regulate storm water discharges from groundwater treatment systems. However, the NPDES Industrial Storm Water Program regulates storm water discharges from industrial facilities. If storm water discharges associated with these Facilities are subject to applicable storm water program requirements, the Discharger is obligated to comply with the federal regulations.

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

1. Under section 303(d) of the 1972 CWA, states, territories, and authorized tribes are required to develop lists of water quality limited segments. The waters on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. On 13 December 2024 U.S. EPA gave partial approval and partial disapproval to California's 2022-2024 section 303(d) List of Water Quality Limited Segments. The Basin Plan references this list of Water Quality Limited Segments (WQLSs), which are defined as "…those sections of lakes, streams, rivers or other fresh water bodies where water quality does not meet (or is not expected to meet) water quality standards even after the application of appropriate limitations for point sources (40 C.F.R. part 130, et seq.)." The Basin Plan also states, "Additional treatment beyond minimum federal standards will be imposed on

dischargers to [WQLSs]. Dischargers will be assigned or allocated a maximum allowable load of critical pollutants so that water quality objectives can be met in the segment." Buffalo Creek and Sailor Bar Park Pond are not listed as an impaired water body on the 2022-2024 303(d) list; however, Buffalo Creek and Sailor Bar Park Pond are tributaries to the American River and the American River is listed as impaired for: benzo[b]fluoranthene, bifenthrin, chrysene (C1-C4), cyfluthrin, indicator bacteria, lambda cyhalothrin, mercury, polychlorinated biphenyls (PCBs), pyrethroids, temperature, and toxicity. Alder Creek is not listed as an impaired water body on the 2022-2024 303(d) list; however, Alder Creek is a tributary to Lake Natoma and Lake Natoma is listed as impaired for: indicator bacteria and mercury. The listing for Morrison Creek includes: benthic community effects, diazinon, dissolved oxygen, pentachlorophenol, pyrethroids, and toxicity.

2. Total Maximum Daily Loads (TMDLs). Table F-5, Table F-6, and Table F-7, below, identifies the 303(d) listings and any applicable TMDLs. At the time of this permit renewal, there are no approved TMDLs with waste load allocations (WLAs) for diazinon, mercury, or pyrethroids that apply to this Facility.

Table F-5. 303 (d) List for American River (Nimbus Dam to confluence with Sacramento River)

Pollutant	Potential Sources	TMDL Status
Benzo[b]fluoranthene	Source Unknown	Planned for Completion 2037
Bifenthrin	Source Unknown	Planned for Completion 2027
Chrysene (C1-C4)	Source Unknown	Planned for Completion 2037
Cyfluthrin	Source Unknown	Planned for Completion 2037
Indicator Bacteria	Source Unknown	Planned for Completion 2027
Lambda Cyhalothrin	Source Unknown	Planned for Completion 2037
Mercury	Source Unknown	Adopted and Effective 2010
PCBs	Source Unknown	Planned for Completion 2037
Pyrethroids	Source Unknown	Planned for Completion 2027
Temperature	Source Unknown	Planned for Completion 2034
Toxicity	Source Unknown	Under Development

Table F-6. 303 (d) List for Lake Natoma

Pollutant	Potential Sources	TMDL Status
Indicator Bacteria	Source Unknown	Planned for Completion 2035

Pollutant	Potential Sources	TMDL Status
Mercury	Source Unknown	Planned for Completion 2029

Table F-7. 303 (d) List for Morrison Creek

Pollutant	Potential Sources	TMDL Status
Benthic Community Effects	Source Unknown	Planned for Completion 2034
Diazinon	Urban runoff/storm sewers	Adopted and Effective 30 November 2004
Dissolved Oxygen	Source Unknown	Planned for Completion 2037
Pentachlorophenol	Source Unknown	Planned for Completion 2027
Pyrethroids	Source Unknown	Adopted and Effective 22 April 2019
Toxicity	Source Unknown	Under Development

3. The 303(d) listings and TMDLs have been considered in the development of the Order.

E. Other Plans, Polices and Regulations

1. **Title 27.** The discharge authorized herein is exempt from the requirements of California Code of Regulations, Title 27 (Title 27) pursuant to Title 27 section 20090(b) because it constitutes a discharge of wastewater to land for which WDRs have been issued, that complies with the Basin Plan, and that does not need to be managed as hazardous waste.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

1. **Prohibition III.A (No discharge or application of waste other than that described in this Order).** This prohibition is based on Water Code section 13260 that requires filing of a ROWD before discharges can occur. The Discharger submitted a ROWD for the discharges described in this Order; therefore, discharges not described in this Order are prohibited.

2. **Prohibition III.B (No bypasses or overflow of untreated wastewater, except under the conditions at CFR section 122.41(m)(4)).** As stated in section I.G of Attachment D, Standard Provisions, this Order prohibits bypass from any portion of the treatment facility. Federal regulations, 40 C.F.R. section 122.41(m), define "bypass" as the intentional diversion of waste streams from any portion of a treatment facility. This section of the federal regulations, 40 C.F.R. section 122.41(m)(4), prohibits bypass unless it is unavoidable to prevent loss of life, personal injury, or severe property damage. In considering the Regional Water Board's prohibition of bypasses, the State Water Board adopted a precedential decision, Order No. WQO 2002-0015, which cites the federal regulations, 40 C.F.R. section 122.41(m), as allowing bypass only for essential maintenance to assure efficient operation.

3. **Prohibition III.C (No controllable condition shall create a nuisance**). This prohibition is based on Water Code section 13050 that requires water quality objectives established for the prevention of nuisance within a specific area. The Basin Plan prohibits conditions that create a nuisance.

4. **Prohibition III.D (No discharge of hazardous waste)**. This prohibition is based on CCR, title 22, section 66261.1 et seq, that prohibits discharge of hazardous waste.

5. **Prohibition III.E (Maximum Daily Design Flow)**. This prohibition is based on the maximum daily design flow treatment capacity rating for the Facility and ensures the Facility is operated within its treatment capacity. Previous Order R5-2020-0051-003 included flow as an effluent limit based on the Facility design flow. Flow is not a pollutant and therefore has been changed from an effluent limit to a discharge prohibition in this Order, which is an equivalent level of regulation. This Order is not less stringent because compliance with flow as a discharge prohibition will be calculated the same way as the previous Order.

6. **Prohibition III.F (Discharge of treated groundwater to Outfalls 008 and 009)**. The Discharger plans to discharge treated groundwater from Various GETs to American River at Natomas Stilling Basin at Outfall 008 and to Alder Creek at Outfall 009. Discharge to Outfalls 008 and 009 is prohibited until the Discharger completes a thermal impact study as described in WDR section VI.C.2.b and meets the requirements of WDR section VI.C.6.b and the Order is reopened and modified to reflect initiation of surface water discharge to Outfall 008 and 009.

7. **Prohibition III.G (Discharge of treated groundwater to Outfall 010).** This prohibition is based on the installation of a low-watt UV treatment system for NDMA removal at Discharge Point 017 for the WRND GET facility to ensure that the facility is operated to meet the effluent limitations for WRND GET. Discharge of wastewater to Outfall 010 is prohibited until the Discharger meets the requirements of WDR section VI.C.6.c.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 C.F.R. section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with 40 C.F.R. section 125.3.

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

a. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

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

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD_5, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

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

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

used, the Central Valley Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

2. Applicable Technology-Based Effluent Limitations

a. **Perchlorate.** The monthly average effluent limitation for perchlorate is established at 4 µg/L, a value that the Discharger, utilizing commercially available technology at ARGET, GET AB, GET HA, GET J, GET KA, WRND GET, AC-18, and AC-25, has shown to be capable of technically and economically meeting on a consistent basis. The California Division of Drinking Water Primary Maximum Contaminant Level (MCL) for perchlorate is 6 µg/L. Therefore, systems for perchlorate removal are not added until the perchlorate concentration in the influent is 6 µg/L or greater. Once the treatment system is added, the average monthly effluent limitation is 4 µg/L if there is no reasonable potential to exceed the water quality objective for perchlorate in the receiving water.

GET EF utilizes a more complex biological treatment system to remove perchlorate due to the elevated concentrations. The biological system has shown to generally meet the 4 µg/L effluent limitation for the other GET facilities. However, there are instances with the biological system operating in manner to also assure the efficient operation of downgradient UV/peroxide and air stripping systems and their ability to meet the effluent limitations for the constituents they are designed to treat (VOCs and perchlorate), when insufficient treatment results in concentrations exceeding 4 µg/L perchlorate. As an example, alcohol is used as a food source for the bacteria reducing the perchlorate. Excess alcohol from the biological treatment system can be turned into formaldehyde and acetaldehyde in the UV/peroxide treatment unit at concentrations exceeding the maximum daily and monthly average effluent limitations for formaldehyde. Insufficient alcohol does not let the bacteria sufficiently reduce the perchlorate. Thus, there is a balancing act on the alcohol feed rate to meet two conflicting requirements.

Since perchlorate is a known constituent of concern at elevated concentrations at GET EF, there is reasonable potential to exceed the water quality objective for perchlorate in the receiving water at this location, and water quality based effluent limits (WQBELs) based on the Primary MCL must be considered. Calculated WQBELs using effluent data at GET EF are less stringent than the previous order's limits which are based on available treatment technology. Therefore, the previous order's effluent limits for GET EF are retained in this Order. Per the Construction, Operation, and Maintenance Specifications (WDRs Section VI.C.4), the Discharger must still design and operate the systems to attempt to achieve an effluent level of 4 µg/L or less. Analysis of the effluent data over the past permit term shows that compliance with these effluent limits is feasible.

b. **Volatile Organics (VOCs).** The effluent limits for VOCs are based on Best Available Technology utilizing either air stripping or carbon adsorption which have been demonstrated to readily reduce VOCs to below 0.5 µg/L. The 0.5 µg/L effluent limitation is below the Water Quality Based Effluent Limits (WQBEL) discussed in section IV.C.3 below for VOCs of concern, with the exception of 1,2-Dichloroethane. The WQBEL of 0.38 µg/L will be used for 1,2-Dichloroethane as discussed in section IV.C.3.b.iii of this Fact Sheet.

Carbon adsorption and ultraviolet light are not entirely effective on the removal of chloroform at low concentrations. GET HA and GET J have low influent concentrations of chloroform. Removal of chloroform by GAC is expensive. As an example, relying on removal of chloroform to 0.5 µg/L by carbon increases the cost of operating GET J by over $500,000 per year. GET HA has been able to consistently meet effluent concentrations for chloroform of 2 µg/L. GET J has been able to consistently meet effluent concentrations for chloroform of 3 µg/L. Therefore, the average monthly effluent limit for GET HA is 2 µg/L and for GET J is 3 µg/L. These effluent limitations are below the California Primary MCL for chloroform of 80 µg/L.

The effluent limitation for trichloroethylene (TCE) and cis-1,2-Dichloroethylene (cis-1,2-DCE) for GET EF was modified in Order No. R5-2009-0016 to 1.5 µg/L based on the treatment systems in use at that facility. Utilizing the best available technologies for perchlorate, NDMA and VOCs at the GET EF facility hinders the ability to consistently remove the TCE and cis-1,2-DCE to 0.5 µg/L due to the presence of very low concentrations of suspended solids from the biological treatment system for the removal of perchlorate. Therefore, the average monthly effluent limitation for TCE and cis-1,2-DCE at GET EF is 1.5 µg/L. The effluent limitations for TCE and cis-1,2-DCE at GET EF are below the California Toxics Rule Human Health criteria for TCE of 2.7 µg/L and the California Division of Drinking Water Primary MCL for cis-1,2-DCE of 6 µg/L.

c. **N-Nitrosodimethylamine (NDMA).** Under a previous version of the permit, the Discharger performed a study on the technical and economic implications of treating NDMA at GET J to 0.002 µg/L, the effluent limitation found in that previous version. The California Public Health Goal for NDMA is 0.003 µg/L. An interim effluent limit of 0.01 µg/L was established, and the studies were undertaken. The studies showed that there is a significant reduction in treatment efficiency below a concentration of 0.01 µg/L, and even less efficiency below 0.007 µg/L. It was estimated that there would be approximately $50 million in increased costs (30-year net present worth) to reduce the effluent from 0.010 µg/L to 0.002 µg/L, assuming power cost per kilowatt/hour remained constant. The Discharger's study concluded that treating to 0.007 µg/L was both technically achievable and cost-effective for GET J and future GETs using

the low-watt UV technology to remove NDMA from groundwater. This effluent limitation has since been applied to GET KA, GET LA, and GET LB. GET AB has shown difficulty meeting 0.002 µg/L, but can consistently meet 0.003 µg/L. Therefore, the average monthly effluent limitation for NDMA at GET AB is 0.003 µg/L. The Discharger plans to install low-watt UV treatment for NDMA at WRND GET since it is the Best Available and Cost Effective Technology for NDMA. Therefore, the average monthly effluent limitation for WRND GET is 0.007 µg/L. This Order, however, requires more stringent WQBELs for NDMA based on section 1.4 of the SIP for GET EF, GET KA, GET LB, Low Threat Discharges, and GET AB discussed in section IV.C.3.b.vii of this Fact Sheet.

Summary of Technology-based Effluent Limitations
Discharge Points 001, 002, 004, 005, 007, 008, 009, 010, 012
014, 016, 017, 019, and 020

Table F-8. Summary of Technology-based Effluent Limitations

Parameter	Units	Effluent Limitations
Chloroform GET HA	µg/L	AMEL 2 MDEL 5
Chloroform GET J	µg/L	AMEL 3 MDEL 5
cis-1,2-Dichloroethylene GET EF	µg/L	AMEL 1.5 MDEL 1.5
NDMA	µg/L	AMEL 0.007 MDEL 0.010
NDMA GET AB	µg/L	AMEL 0.003 MDEL 0.010
Perchlorate	µg/L	AMEL 4 MDEL 6
Perchlorate GET EF	µg/L	AMEL 6 MDEL 10
Trichloroethylene GET EF	µg/L	AMEL 1.5 MDEL 1.5
Volatile Organics	µg/L	AMEL 0.5 MDEL 0.7

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

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

Section 122.44(d)(1)(i) of 40 C.F.R. requires that permits include effluent

limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

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

Finally, 40 C.F.R. section 122(d)(1)(vii) requires effluent limits to be developed consistent with any available WLAs developed and approved for the discharge.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

The Basin Plan on page 2-1 states: "Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning…" and with respect to disposal of wastewaters states that "...disposal of wastewaters is [not] a prohibited use of waters of the State; it is merely a use which cannot be satisfied to the detriment of beneficial uses."

The federal CWA section 101(a)(2), states: "it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water be achieved by July 1, 1983." Federal Regulations, developed to implement the requirements of the CWA, create a rebuttable presumption that all waters be designated as fishable and swimmable. Federal Regulations, 40 CFR sections 131.2 and 131.10, require that all waters of the State regulated to protect the beneficial uses of public water supply, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation. 40 C.F.R. section 131.3(e) defines existing beneficial uses as those uses actually attained after 28 November 1975,

whether or not they are included in the water quality standards. Federal Regulation, 40 C.F.R. section 131.10 requires that uses be obtained by implementing effluent limitations, requires that all downstream uses be protected and states that in no case shall a state adopt waste transport or waste assimilation as a beneficial use for any waters of the United States.

a. **Receiving Water and Beneficial Uses.** Refer to III.C.1. above for a complete description of the receiving water and beneficial uses. Buffalo Creek is an ephemeral stream that is tributary to the American River. Alder Creek is an ephemeral stream that is also tributary to the American River. The American River is a large river with year-round flows tributary to the Sacramento River. The Natomas Stilling Basin is a part of Lake Natoma on the American River. Sailor Bar Park Pond is a pond located in Sailor Bar Park that can overflow into American River. Morrison Creek has year-round flows and is tributary to the Sacramento River.

b. **Effluent and Ambient Background Data.** The reasonable potential analysis (RPA), as described in section IV.C.3 of this Fact Sheet, was based on data from April 2022 through March 2025, which includes effluent and ambient background data submitted in SMRs and the ROWD. Additional data outside of this range was also analyzed where there was inadequate data to perform an analysis. American River hardness data from October 2019 to July 2020 was used to calculate criteria for hardness-dependent metals. Flow data for the American River using 15 minute interval data collected from the California Data Exchange Center – American River at Fair Oaks (AFO) monitoring station from January 2020 to January 2024 was used to determine the harmonic mean flow of the American River for calculating the critical downstream receiving water pollutant concentration of acetaldehyde. Five years of data from April 2020 through March 2025 has been used in the RPA for whole effluent toxicity as required in the Statewide Toxicity Provisions.

c. **Conversion Factors.** The CTR contains aquatic life criteria for arsenic, cadmium, chromium III, chromium VI, copper, lead, nickel, silver, and zinc, which are presented in dissolved concentrations. The default U.S. EPA conversion factors contained in Appendix 3 of the SIP were used to convert the applicable dissolved criteria to total criteria. Per the Reopener Provisions of this Order, if the Discharger performs studies to determine site-specific dissolved-to-total metal translators this Order may be reopened to modify the effluent limitations for the applicable inorganic constituents.

d. **Hardness-Dependent CTR Metals Criteria.** The CTR and the NTR contain water quality criteria for seven metals that vary as a function of hardness. The lower the hardness the lower the water quality criteria. The metals with hardness-dependent criteria include cadmium, copper,

chromium III, lead, nickel, silver, and zinc. This Order has established the criteria for hardness-dependent metals based on the hardness of the receiving water (actual ambient hardness) as required by the SIP and the CTR.

The ambient hardness for the American River ranges from 16 mg/L to 28 mg/L based on collected ambient data from October 2019 through March 2023. Given the variability in ambient hardness values, there is no single hardness value that describes the ambient receiving water for all possible scenarios (e.g., minimum, maximum). Because of this variability, staff has determined that based on the ambient hardness concentrations measured in the receiving water, the Central Valley Water Board has discretion to select ambient hardness values within the range of 16 mg/L (minimum) up to 28 mg/L (maximum).

The Central Valley Water Board finds that the use of the ambient hardness values and associated acute and chronic criteria shown in Table F-9 to conduct the reasonable potential analysis (RPA) and calculate WQBELs, protect beneficial uses under all ambient receiving water conditions and comply with the SIP, CTR, and Basin Plan.

Table F-9. Summary of Criteria for CTR Hardness-dependent Metals

CTR Metals	Ambient Hardness (mg/L)	Acute Criteria (µg/L, total)	Chronic Criteria (µg/L, total)
Copper	28	4.2	3.1
Chromium III	28	610	73
Cadmium	28 (acute) 28 (chronic)	1.1	0.90
Lead	28	16	0.63
Nickel	28	160	18
Silver	28	0.45	--
Zinc	28	41	41

Table F-9 Notes:

1. **Criteria (µg/L total).** Acute and chronic criteria were rounded to two significant figures in accordance with the CTR (40 C.F.R. section 131.38(b)(2)).
2. **Ambient hardness (mg/L).** Values in Table F-9 represent actual observed receiving water hardness measurements.

3. Determining the Need for WQBELs

Clean Water Act section 301(b)(1)(C) requires effluent limitations necessary to meet water quality standards, and 40 C.F.R. section 122.44(d) requires NPDES permits to include conditions that are necessary to achieve water quality standards established under section 303 of the CWA, including State narrative

criteria for water quality. Federal regulations at 40 C.F.R 122.44(d)(1)(i) state, "Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." Additionally, 40 C.F.R. section 122(d)(1)(vii) requires effluent limits to be developed consistent with any available WLAs developed and approved for the discharge. The process to determine whether a WQBEL is required as described in 40 C.F.R. section 122.44(d)(1)(i) is referred to as a reasonable potential analysis or RPA. Central Valley Water Board staff conducted RPAs for nearly 200 constituents, including the 126 U.S. EPA priority toxic pollutants. This section includes details of the RPAs for constituents of concern for the Facility. The entire RPA is included in the administrative record and a summary of the constituents of concern is provided in Attachment G.

For priority pollutants, the SIP dictates the procedures for conducting the RPA. For non-priority pollutants the Central Valley Water Board is not restricted to one particular RPA method; therefore, the RPAs have been conducted based on U.S. EPA guidance considering multiple lines of evidence and the site-specific conditions of the discharge.

a. **Constituents with No Reasonable Potential.** Central Valley Water Board staff conducted reasonable potential analyses for nearly 200 constituents, including the 126 U.S. EPA priority toxic pollutants. All reasonable potential analyses are included in the administrative record and a summary of the constituents of concern is provided in Attachment G. WQBELs are not included in this Order for constituents that do not demonstrate reasonable potential to cause or contribute to an instream excursion of an applicable water quality objective; however, monitoring for those pollutants is established in this Order as required by the SIP. If the results of effluent monitoring demonstrate reasonable potential, this Order may be reopened and modified by adding an appropriate effluent limitation.

   Most constituents with no reasonable potential are not discussed in this Order. This section only provides the rationale for the reasonable potential analyses for the following constituents of concern that were found to have no reasonable potential after assessment of the data:

   i. **Salinity**

      (a) **WQO.** The Basin Plan contains a chemical constituent objective that incorporates state MCLs, contains a narrative objective, and contains numeric water quality objectives for certain specified water bodies for electrical conductivity, total dissolved

solids, sulfate, and chloride. The U.S. EPA Ambient Water Quality Criteria for Chloride recommends acute and chronic criteria for the protection of aquatic life. There are no U.S. EPA water quality criteria for the protection of aquatic life for electrical conductivity, total dissolved solids, and sulfate. Additionally, there are no U.S. EPA numeric water quality criteria for the protection of agricultural, livestock, and industrial uses. Numeric values for the protection of these uses are typically based on site specific conditions and evaluations to determine the appropriate constituent threshold necessary to interpret the narrative chemical constituent Basin Plan objective. The Central Valley Water Board must determine the applicable numeric limit to implement the narrative objective for the protection of agricultural supply. Table F-10, below, contains various recommended levels for EC or TDS, sulfate, and chloride.

Table F-10. Salinity Water Quality Criteria/Objectives

Parameters	Secondary MCL Recommended Level.	Secondary MCL Upper Level	Secondary MCL Short-term Maximum	U.S. EPA NAWQC	Maximum Calendar Annual Average Effluent Concentration	Maximum Daily Effluent Concentration
EC (µmhos/cm) or TDS (mg/L)	EC 900 or TDS 500	EC 1,600 or TDS 1,000	EC 2,200 or TDS 1,500	N/A	EC 280 TDS 231	EC 695 TDS 272
Sulfate (mg/L)	250	500	600	N/A	16	17
Chloride (mg/L)	250	500	600	860 1-hour / 230 4-day	19	51

Table F-10 Notes:

1. **Agricultural Water Quality Objectives.** Applicable agricultural water quality objectives vary. Procedures for establishing the applicable numeric limitation to implement the narrative chemical constituent objective can be found in the Policy for Application of Water Quality Objectives, section 4.2.2.1.9 of the Basin Plan. However, the Basin Plan does not require improvement over naturally occurring background concentrations. In cases where the natural background concentration of a particular constituent exceeds an applicable water quality objective, the natural background concentration will be considered to comply with the objective.

2. **Secondary MCLs.** Secondary MCLs are for protection of public welfare and are stated as a recommended level, upper level, and a short-term maximum level.
3. **Chloride.** The Secondary MCL for chloride is 250 mg/L, as a recommended level, 500 mg/L as an upper level, and 600 mg/L as a short-term maximum.
4. **Electrical Conductivity or Total Dissolved Solids.** The Secondary MCL for EC is 900 µmhos/cm as a recommended level, 1600 µmhos/cm as an upper level, and 2200 µmhos/cm as a short-term maximum, or when expressed as TDS is 500 mg/L as a recommended level, 1000 mg/L as an upper level, and 1500 mg/L as a short-term maximum.
5. **Sulfate.** The Secondary MCL for sulfate is 250 mg/L as a recommended level, 500 mg/L as an upper level, and 600 mg/L as a short-term maximum.

(b) **RPA Results.**

(1) **Chloride.** Chloride concentrations in the effluent ranged from 8.2 mg/L to 51 mg/L, with an average of 13 mg/L. These levels do not exceed the Secondary MCL. Background concentrations in the American River ranged from 1.1 mg/L to 2.0 mg/L, with an average of 1.5 mg/L, for four samples collected by the Discharger from Merch 2023 through December 2023.

(2) **Electrical Conductivity or Total Dissolved Solids.** A review of the Discharger's monitoring reports shows an average effluent EC of 282 µmhos/cm, with a range from 13 µmhos/cm to 695 µmhos/cm. These levels do not exceed the Secondary MCL. The background receiving water EC ranged from 1.6 mg/L to 250 mg/L, with an average of 87 mg/L. The average TDS effluent concentration was 210 mg/L with concentrations ranging from 130 mg/L to 270 mg/L. These levels do not exceed the Secondary MCL. The background receiving water TDS ranged from 21 mg/L to 170 mg/L, with an average of 65 mg/L.

(3) **Sulfate.** Sulfate concentrations in the effluent ranged from 3.5 mg/L to 17 mg/L, with an average of 15 mg/L. These levels do not exceed the Secondary MCL. Background concentrations in the American River ranged from 1.2 mg/L to 3.3 mg/L, with an average of 2.0 mg/L.

(c) **WQBELs.**

As discussed above, the discharge does not have reasonable potential to cause or contribute to an in-stream excursion of water quality objectives for salinity. On 17 January 2020, certain

amendments to the Basin Plan incorporating a Program to Control and Permit Salt Discharges to Surface and Groundwater (Salt Control Program) became effective. Other amendments became effective on 2 November 2020 when approved by the U.S. EPA. The Salt Control Program is a three-phased program, with each phase lasting 10 to 15 years. The Basin Plan requires all salt dischargers to comply with the provisions of the program. Two compliance pathways are available for salt dischargers during Phase 1.

The Phase 1 Compliance pathways are: 1) Conservative Salinity Permitting Approach, which utilizes the existing regulatory structure and focuses on source control, conservative salinity limits on the discharge, and limits the use of assimilative capacity and compliance time schedules; and, 2) Alternative Salinity Permitting Approach, which is an alternative approach to compliance through implementation of specific requirements such as participating in the Salinity Prioritization and Optimization Study (P&O) rather than the application of conservative discharge limits.

The Discharger submitted a Notice of Intent for the Salinity Control Program indicating its intent to meet the Alternative Salinity Permitting Approach. Due to the low concentration of EC in the extracted groundwater, a Salinity Evaluation and Minimization Plan and EC trigger have not been required in this Order.

b. **Constituents with Reasonable Potential.** The Central Valley Water Board finds that the discharge has a reasonable potential to cause or contribute to an instream excursion above a water quality standard for 1,1-dichloroethane, 1,1-dichloroethylene, 1,2-dichloroethane, acetaldehyde, chloroform, cis-1,2-dichloroethylene, N-Nitrosodimethylamine, perchlorate, pH, tetrachloroethylene, and trichloroethylene. WQBELs for these constituents are included in this Order. A summary of the RPA is provided in Attachment G, and a detailed discussion of the RPA for each constituent is provided below.

i. **1,1-Dichloroethane**

(a) **WQO.** DDW has adopted a Primary MCL for 1,1-dichloroethane of 5 µg/L, which is protective of the Basin Plan's chemical constituent objective.

(b) **RPA Results.** 1,1-Dichloroethane was not detected in the effluent at Discharge Point 012 for Low Threat Discharges or the receiving waters. 1,1-Dichloroethane in the discharge does

not have reasonable potential to cause or contribute to an instream excursion above the Primary MCL; however, 1,1-dichloroethane is a constituent of concern at Discharge Point 012 for Low Threat Discharges and WQBELs have been established.

(c) **WQBELs.** Due to no assimilative capacity, dilution credits are not allowed for development of the WQBELs for 1,1-dichloroethane. This Order contains an average monthly effluent limitation (AMEL) of 5 µg/L and maximum daily effluent limitation (MDEL) of 8 µg/L for 1,1-dichloroethane at Discharge Point 012 for Low Threat Discharges based on the Basin Plan's narrative chemical constituents objective for protection of the MUN beneficial use.

(d) **Plant Performance and Attainability.** Analysis of the effluent data at Discharge Point 012 for Low Threat Discharges shows that 1,1-dichloroethane was not detected. The Central Valley Water Board concludes, therefore, that immediate compliance with these effluent limitations is feasible.

ii. **1,1-Dichloroethylene**

(a) **WQO.** The CTR includes a criterion of 0.057 µg/L for 1,1-dichloroethylene for the protection of human health for waters from which both water and organisms are consumed.

(b) **RPA Results.** 1,1-Dichloroethylene was not detected in the effluent at Discharge Point 012 for Low Threat Discharges or the receiving waters. Therefore, 1,1-dichloroethylene in the discharge does not have reasonable potential to cause or contribute to an instream excursion above the CTR criterion for the protection of human health; however, 1,1-dichloroethylene is a constituent of concern at Discharge Point 012 for Low Threat Discharges and WQBELs have been established

(c) **WQBELs.** Due to no assimilative capacity, dilution credits are not allowed for development of the WQBELs for 1,1-dichloroethylene. This Order contains a final AMEL of 0.057 µg/L and MDEL of 0.079 µg/L at Discharge Point 012 for Low Threat Discharges based on the CTR criterion for the protection of human health.

(d) **Plant Performance and Attainability**. Analysis of the effluent data at Discharge Point 012 for Low Threat Discharges shows that 1,1-dichloroethylene was not detected. The Central Valley Water Board concludes, therefore, that immediate compliance with these effluent limitations is feasible.

iii. **1,2-Dichloroethane**

(a) **WQO.** The CTR includes a criterion of 0.38 µg/L for 1,2-dichloroethane for the protection of human health for waters from which both water and organisms are consumed.

(b) **RPA Results.** The 1,2-dichloroethane was not detected in the effluent or receiving waters. 1,2-Dichloroethane in the discharge does not have reasonable potential to cause or contribute to an instream excursion above the CTR criterion for the protection of human health; however, 1,2-dichloroethane is a constituent of concern at Discharge Point 002 for GET EF, Discharge Point 012 for Low Threat Discharges, and Discharge Point 016 for GET AB facilities and WQBELs have been established.

(c) **WQBELs.** Due to no assimilative capacity, dilution credits are not allowed for development of the WQBELs for 1,2-dichloroethane. This Order contains a final AMEL and MDEL for 1,2-dichloroethane of 0.38 µg/L and 0.5 µg/L, respectively, at Discharge Point 002 for GET EF, Discharge Point 012 for Low Threat Discharges, and Discharge Point 016 for GET AB facilities based on the CTR criterion for the protection of human health.

(d) **Plant Performance and Attainability**. Analysis of the effluent data at GET EF, for Low Threat Discharges, and GET AB shows that the 1,2-dichloroethane was not detected in the effluent. The Central Valley Water Board concludes, therefore, that immediate compliance with these effluent limitations is feasible.

iv. **Acetaldehyde**

(a) **WQO.** There is no applicable numeric WQO for acetaldehyde. However, a water odor threshold of 34 µg/L was established in 1983 in the article *Odor as an Aid to Chemical Safety: Odor Thresholds Compared with Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water Dilution, Journal of Applied Toxicology* by John E. Amoore and Earl Hautala for acetaldehyde. Additionally, U.S. EPA has prepared Regional Screening Levels (RSLs) for tap water for acetaldehyde, with the primary risk being from inhalation of tap water through showering and cooking. There are RSLs for cancer at a 10^{-6} risk level of 2.6 µg/L and a noncancer hazard index of 19 µg/L. The tap water RSL concentrations were calculated using the inhalation reference of $2.2x10^{-6}$ per $\mu g/m^3$. These values were considered screening levels in the assessment of the effluent's potential to adversely affect

beneficial uses; however, none were determined to be an appropriate numeric interpretation of the Basin Plan's narrative water quality objectives applicable to acetaldehyde.

(b) **RPA Results.** For priority pollutants, the SIP dictates the procedures for conducting the RPA. Acetaldehyde is not a priority pollutant. Therefore, the Central Valley Water Board is not restricted to one particular RPA method. Due to the site-specific conditions of the discharge, the Central Valley Water Board used best professional judgment in determining the appropriate method for conducting the RPA for this non-priority pollutant constituent.

U.S. EPA's September 2010 NPDES Permit Writer's Manual recommends using a mass-balance approach to determine the expected critical downstream receiving water concentration using a steady-state approach. The downstream receiving water concentration is then compared to the applicable water quality threshold to determine if the discharge has reasonable potential to cause or contribute to an in-stream excursion. This approach allows assimilative capacity and dilution to be factored into the RPA. This U.S. EPA recommended approach has been used to assess the reasonable potential for acetaldehyde in the Facility's effluent to adversely affect the receiving water beneficial uses. The critical downstream receiving water concentration is calculated using the equation below:

$$Cr = (QsCs + QcCd) / (Qs + Qd)$$

Where: Qs = Critical stream flow

Qd = Critical effluent flow from discharge flow data (maximum permitted discharge)

Cs = Critical upstream pollutant concentration

Cd = Critical effluent pollutant concentration

Cr = Critical downstream receiving water pollutant concentration

For the purposes of conducting the RPA, the critical stream flow (Qs) has been set to the harmonic mean flow of 1,089 MGD in the American River using 15 minute interval data collected from the California Data Exchange Center – American River at Fair Oaks (AFO) monitoring station from January 2020 to January 2024 and the critical effluent flow (Qd) has been set to the permitted flow of 11.52 MGD at Discharge Point 002 for GET

EF. The critical effluent pollutant concentration, Cd, has been established as the projected annual average effluent concentration. Calculating a maximum annual average concentration considers variability in the data, per 40 C.F.R. § 122.44(d)(1)(ii). The projected annual average effluent concentration was determined based on effluent data collected from February 2020 to January 2024 and projected using statistics recommended in the TSD for statistically projecting effluent concentrations (i.e., Table 3-1 of the TSD using the 99 percent probability basis and 99 percent confidence level).

The projected annual average effluent concentration (Cd) is 12 µg/L based on an average effluent acetaldehyde concentration of 3.8 µg/L. The annual average upstream receiving water concentration (Cs) for acetaldehyde was 1.7 µg/L based on four samples collected from March 2024 through July 2024. Using the equation above, the calculated critical downstream receiving water acetaldehyde concentration (Cr) is 1.8 µg/L, which is comparable to ambient upstream conditions and does not exceed the lowest screening level of 2.6 µg/L. Therefore, based on this data, the discharge does not have reasonable potential to adversely affect receiving water beneficial uses. However, acetaldehyde is found in the treatment train as a by-product of perchlorate treatment. Therefore, taking into consideration anti-backsliding considerations discussed in section IV.D.3 below, best professional judgment was used to establish a performance-based effluent limitation to maintain a level of treatment that ensures the discharge does not adversely affect the receiving water beneficial uses.

(c) **WQBELs.** This Order contains a performance-based annual average effluent limitation of 7.3 µg/L for acetaldehyde at Discharge Point 002 for GET EF. The performance-based limitation is based on the GET EF facility performance using the maximum annual average effluent concentration between January 2020 and December 2023 of 5.8 µg/L with an additional 25 percent allowance that considers possible temporary increases that may occur due to spikes in acetaldehyde creation by microorganisms or other unknown sources in the treatment train.

(d) **Plant Performance and Attainability.** Analysis of the effluent data at Discharge Point 002 for GET EF shows that the maximum annual average of 5.8 µg/L is less than the applicable WQBEL. The Central Valley Water Board concludes, therefore, that immediate compliance with the effluent limitation is feasible.

v. **Chloroform**

(a) **WQO.** DDW has adopted a Primary MCL for chloroform of 80 µg/L, which is protective of the Basin Plan's chemical constituent objective.

(b) **RPA Results.** The maximum effluent concentration (MEC) for chloroform at Discharge Point 012 for Low Threat Discharges was 3.5 µg/L while the maximum observed upstream receiving water concentration was 42 µg/L. Discharges from Discharge Point 012 for Low Threat Discharges include discharges from AC-25. AC-25 was only operated as described in Order R5-2020-0051-003 for discharge to Discharge Point 012. Therefore, data from Discharge Point 012 for Low Threat Discharges is representative of Discharge Point 020 for AC-25. Therefore, chloroform at Discharge Point 012 for Low Threat Discharges and Discharge Point 020 for AC-25 has a reasonable potential to cause or contribute to an instream excursion above the Primary MCL.

(c) **WQBELs.** Due to no assimilative capacity, dilution credits are not allowed for development of the WQBELs for chloroform. The MEC of 3.5 µg/L at Discharge Point 012 for Low Threat Discharges is below the Primary MCL for chloroform; therefore, this Order contains performance-based effluent limitations carried forward from Order R5-2020-0051-003 of an AMEL of 3 µg/L and MDEL of 5 µg/L for chloroform at Discharge Point 012 for Low Threat Discharges based on facility performance and considering the Basin Plan's narrative chemical constituents objective for protection of the MUN beneficial use. The same performance-based effluent limits have been established at Discharge Point 020 for AC-25.

(d) **Plant Performance and Attainability.** Analysis of the effluent data at Discharge Point 012 for Low Threat Discharges shows that the MEC of 3.5 µg/L is less than the applicable MDEL. The Central Valley Water Board concludes, therefore, that immediate compliance with these effluent limitations is feasible.

vi. **cis-1,2-Dichloroethylene**

(a) **WQO.** DDW has adopted a Primary MCL for cis-1,2-dichloroethylene of 6 µg/L, which is protective of the Basin Plan's chemical constituent objective.

(b) **RPA Results.** Cis-1,2-Dichloroethylene was not detected in the effluent at Discharge Point 012 for Low Threat Discharges or the receiving waters. Therefore, cis-1,2-dichloroethane in the discharge does not have reasonable potential to cause or

contribute to an instream excursion above the Primary MCL; however, cis-1,2-dichloroethane is a constituent of concern at Discharge Point 012 for Low Threat Discharges and WQBELs have been established.

(c) **WQBELs.** Due to no assimilative capacity, dilution credits are not allowed for development of the WQBELs for cis-1,2-dichloroethylene. This Order contains an AMEL of 6 µg/L and MDEL of 7 µg/L for cis-1,2-dichloroethylene at Discharge Point 012 for Low Threat Discharges based on the Basin Plan's narrative chemical constituents objective for protection of the MUN beneficial use.

(d) **Plant Performance and Attainability.** Analysis of the effluent data at Discharge Point 012 for Low Threat Discharges shows that cis-1,2-dichloroethylene was not detected. The Central Valley Water Board concludes, therefore, that immediate compliance with these effluent limitations is feasible.

vii. **N-Nitrosodimethlyamine**

(a) **WQO.** The CTR includes a criterion of 0.00069 µg/L for NDMA for the protection of human health for waters from which both water and organisms are consumed.

(b) **RPA Results.** The maximum effluent concentration (MEC) and the maximum observed upstream receiving water concentrations for NDMA are listed in Table F-11 below.

Table F-11. Effluent and Receiving Water NDMA Concentrations

Discharge Point	Facility	MEC (µg/L)	Maximum Upstream Receiving Water Concentration (µg/L)
001	ARGET	ND	ND
002	GET EF	0.0049	ND
005	GET J	ND	ND
007	GET KA	0.0032	0.0065
008	GET LA	--	ND
009	GET LB	0.0027	ND
012	Low Threat Discharges	0.0027	ND
016	GET AB	0.0076	ND
017	WRND GET	ND	ND

NDMA in the discharge does not have reasonable potential to cause or contribute to an instream excursion above the CTR criterion for the protection of human health for ARGET, GET J, and WRND GET. Although ARGET does not have reasonable

potential for NDMA and does not have treatment units for NDMA, NDMA is a constituent of concern at the ARGET facility and WQBELs have been established.

GET LA was not in use during the term of Order R5-2020-0051-003. Therefore, there is insufficient data to determine reasonable potential to cause or contribute to an instream excursion above the CTR criterion for the protection of human health at GET LA.

NDMA in the discharge has a reasonable potential to cause or contribute to an instream excursion above the CTR criterion for the protection of human health at GET EF, GET KA, GET LB, Low Threat Discharges, and GET AB.

(c) **WQBELs.** Due to no assimilative capacity, dilution credits are not allowed for development of the WQBELs for NDMA. This Order contains a final average monthly effluent limitation (AMEL) 0.00069 µg/L and maximum daily effluent limitation (MDEL) 0.0024 µg/L for NDMA at ARGET, GET EF, GET KA, GET LB, Low Threat Discharges, and GET AB of based on the CTR criterion for the protection of human health.

Although NDMA does not have reasonable potential at GET J, GET LA, and WRND GET, NDMA is a constituent of concern at these facilities and these facilities treat for NDMA. TBELs have been established for GET J, GET LA, and WRND GET as discussed in section IV.B.2 of this Fact Sheet.

(d) **Plant Performance and Attainability**. Analysis of the effluent data shows that the MEC shown above for NDMA at ARGET is below the applicable WQBELs. The Central Valley Water Board concludes, therefore, that immediate compliance with these effluent limitations is feasible at ARGET.

Analysis of the effluent data shows that the MEC shown above for NDMA at GET EF, GET KA, GET LB, Low Threat Discharges, and GET AB is greater than applicable WQBELs. Based on the sample results for the effluent, the limitations appear to put the Discharger in immediate non-compliance. New or modified control measures may be necessary in order to comply with the effluent limitations, and the new or modified control measures cannot be designed, installed and put into operation within 30 calendar days and a compliance schedule is needed. The Discharger submitted an Infeasibility Analysis dated 13 November 2025 documenting the need for time to comply with final effluent limits for NDMA. Therefore, the Discharger is subject to Time Schedule Order (TSO) R5-2026-

XXXX, which provides a compliance schedule to achieve compliance with the final effluent limitations for NDMA.

viii. **Perchlorate**

(a) **WQO.** DDW has adopted a Primary MCL for perchlorate of 6 µg/L, which is protective of the Basin Plan's chemical constituent objective.

(b) **RPA Results.** The MEC for perchlorate at Discharge Point 012 for Low Threat Discharges was 5.1 µg/L while perchlorate was not detected in the upstream receiving waters. Discharges from Discharge Point 012 for Low Threat Discharges include discharges from AC-18 and AC-25. AC-18 and AC-25 were only operated as described in Order R5-2020-0051-003 for discharge to Discharge Point 012. Therefore, data from Discharge Point 012 for Low Threat Discharges is representative of Discharge Point 014 for AC-18 and Discharge Point 020 for AC-25. Therefore, perchlorate in the discharge at Discharge Point 012 for Low Threat Discharges, Discharge Point 014 for AC-18, and Discharge Point 020 for AC-25 does not have reasonable potential to cause or contribute to an instream excursion above the Primary MCL; however, perchlorate is a constituent of concern at Discharge Point 012 for Low Threat Discharges, Discharge Point 014 for AC-18, and Discharge Point 020 for AC-25 and WQBELs have been established.

(c) **WQBELs.** Due to no assimilative capacity, dilution credits are not allowed for development of the WQBELs for perchlorate. This Order contains an AMEL of 6 µg/L and an MDEL of 15 µg/L for perchlorate at Discharge Point 012 for Low Threat Discharges based on the Basin Plan's narrative chemical constituents objective for protection of the MUN beneficial use. TBELs have been established at Discharge Point 014 for AC-18 and Discharge Point 020 for AC-25 as discussed in section IV.B.2 of this Fact Sheet.

(d) **Plant Performance and Attainability.** Analysis of the effluent data at Discharge Point 012 for Low Threat Discharges shows that the MEC of 5.1 µg/L is less than the applicable WQBELs. The Central Valley Water Board concludes, therefore, that immediate compliance with these effluent limitations is feasible.

ix. **pH**

(a) **WQO.** The Basin Plan includes a water quality objective for surface waters (except for Goose Lake) that the "pH shall not be depressed below 6.5 nor raised above 8.5."

(b) **RPA Results.** The pH range in the effluent is listed in Table F-12 below.

Table F-12. Effluent pH Ranges

Discharge Point	Facility	Effluent Range (Standard units)
001	ARGET	7.6-8.6
009	GET LB	7.2-9.1
010	Sailor Bar Park GET	7.0-9.2
012	Low Threat Discharges	5.9-8.3
017	WRND GET	7.7-8.6

The pH in the discharge exceeds the Basin Plan water quality objective, therefore the effluent has a reasonable potential to cause or contribute to an instream excursion above the objective.

(c) **WQBELs.** Effluent limitations for pH of 6.5 as an instantaneous minimum and 8.5 as an instantaneous maximum are included in this Order at all Discharge Points based on protection of the Basin Plan objectives for pH.

(d) **Plant Performance and Attainability.** Analysis of the effluent data shows that the pH ranges in Table F-12 above are greater than applicable WQBELs. Based on the sample results for the effluent, the limitations appear to put the Discharger in immediate non-compliance. New or modified control measures may be necessary in order to comply with the effluent limitations, and the new or modified control measures cannot be designed, installed and put into operation within 30 calendar days and a compliance schedule may be needed.

x. **Tetrachloroethylene**

(a) **WQO.** The CTR includes a criterion of 0.8 µg/L for tetrachloroethylene for the protection of human health for waters from which both water and organisms are consumed.

(b) **RPA Results.** The MEC for tetrachloroethylene at Discharge Point 012 for Low Threat Discharges was 0.84 µg/L while tetrachloroethylene was not detected in the upstream receiving waters. Discharges from Discharge Point 012 for Low Threat Discharges include discharges from AC-25. AC-25 was only operated as described in Order R5-2020-0051-003 for discharge to Discharge Point 012. Therefore, data from Discharge Point 012 for Low Threat Discharges is representative of Discharge Point 020 for AC-25. Therefore,

tetrachloroethylene in the discharge at Discharge Point 012 for Low Threat Discharges and at Discharge Point 020 for AC-25 has reasonable potential to cause or contribute to an instream excursion above the CTR criterion for the protection of human health.

(c) **WQBELs.** Due to no assimilative capacity, dilution credits are not allowed for development of the WQBELs for tetrachloroethylene. This Order contains a final AMEL of 0.80 µg/L and a MDEL of 1.7 µg/L for tetrachloroethylene at Discharge Point 012 for Low Threat Discharges and at Discharge Point 020 for AC-25 based on the CTR criterion for the protection of human health.

(d) **Plant Performance and Attainability**. Analysis of the effluent data at Discharge Point 012 for Low Threat Discharges shows that the MEC of 0.84 µg/L is less than the applicable MDEL. The Central Valley Water Board concludes, therefore, that immediate compliance with these effluent limitations is feasible.

xi. **Trichloroethylene**

(a) **WQO.** The CTR includes a criterion of 2.7 µg/L for trichloroethylene for the protection of human health for waters from which both water and organisms are consumed.

(b) **RPA Results.** The MEC for trichloroethylene at Discharge Point 012 for Low Threat Discharges was 1.2 µg/L while trichloroethylene was not detected in the upstream receiving waters. Discharges from Discharge Point 012 for Low Threat Discharges include discharges from AC-18 and AC-25. AC-18 and AC-25 were only operated as described in Order R5-2020-0051-003 for discharge to Discharge Point 012. Therefore, data from Discharge Point 012 for Low Threat Discharges is representative of Discharge Point 014 for AC-18 and Discharge Point 020 for AC-25. Therefore, trichloroethylene in the discharge at Discharge Point 012 for Low Threat Discharges, Discharge Point 014 for AC-18, and Discharge Point 020 for AC-25 does not have reasonable potential to cause or contribute to an instream excursion above the CTR criterion for the protection of human health; however, trichloroethylene is a constituent of concern at Discharge Point 012 for Low Threat Discharges, Discharge Point 014 for AC-18, and Discharge Point 020 for AC-25 and WQBELs have been established.

(c) **WQBELs.** Due to no assimilative capacity, dilution credits are not allowed for development of the WQBELs for trichloroethylene. This Order contains an AMEL of 2.7 µg/L and a MDEL of 6.7 µg/L for trichloroethylene at Discharge Point 012

for Low Threat Discharges, Discharge Point 014 for AC-18, and Discharge Point 020 for AC-25 based on the CTR criterion for the protection of human health.

(d) **Plant Performance and Attainability**. Analysis of the effluent data at Discharge Point 012 for Low Threat Discharges shows that the MEC of 1.2 µg/L is less than the applicable WQBELs. The Central Valley Water Board concludes, therefore, that immediate compliance with these effluent limitations is feasible.

4. WQBEL Calculations

a. This Order includes WQBELs for 1,1-dichloroethane, 1,1-dichloroethylene, 1,2-dichloroethane, acetaldehyde, chloroform, cis-1,2-dichloroethylene, NDMA, perchlorate, pH, tetrachloroethylene, and trichloroethylene. The general methodology for calculating WQBELs based on the different criteria/objectives is described in subsections IV.C.4.b through e, below. See Attachment H for the WQBEL calculations.

b. **Effluent Concentration Allowance.** For each water quality criterion/objective, the ECA is calculated using the following steady-state mass balance equation from section 1.4 of the SIP:

ECA = C + D(C – B) where C>B, and
ECA = C where C≤B

where:

ECA = effluent concentration allowance
D = dilution credit
C= the priority pollutant criterion/objective
B= the ambient background concentration.

According to the SIP, the ambient background concentration (B) in the equation above shall be the observed maximum with the exception that an ECA calculated from a priority pollutant criterion/objective that is intended to protect human health from carcinogenic effects shall use the arithmetic mean concentration of the ambient background samples.

c. **Primary and Secondary MCLs.** For non-priority pollutants with primary MCLs to protect human health (e.g., nitrate plus nitrite), the AMEL is set equal to the primary MCL and the MDEL is calculated using the MDEL/AMEL multiplier from Table 2 of the SIP.

For non-priority pollutants with secondary MCLs that protect public welfare (e.g., taste, odor, and staining), WQBELs were calculated by setting the LTA equal to the secondary MCL and using the AMEL multiplier to set the

AMEL. The MDEL was calculated using the MDEL/AMEL multiplier from Table 2 of the SIP.

d. **Aquatic Toxicity Criteria.** For constituents with acute and chronic aquatic toxicity criteria, the WQBELs are calculated in accordance with section 1.4 of the SIP. The ECAs are converted to equivalent long-term averages (i.e. LTA_{acute} and $LTA_{chronic}$) using statistical multipliers and the lowest LTA is used to calculate the AMEL and MDEL using additional statistical multipliers.

e. **Human Health Criteria.** For constituents with human health criteria, the WQBELs are calculated in accordance with section 1.4 of the SIP. The AMEL is set equal to the ECA and the MDEL is calculated using the MDEL/AMEL multiplier from Table 2 of the SIP.

$$AMEL = mult_{AMEL}[\min(\underbrace{M_A ECA_{acute}}_{LTA_{acute}}, M_C ECA_{chronic})]$$

$$MDEL = mult_{MDEL}[\min(M_A ECA_{acute}, \underbrace{M_C ECA_{chronic}}_{LTA_{chronic}})]$$

$$MDEL_{HH} = \left(\frac{mult_{MDEL}}{mult_{AMEL}}\right) AMEL_{HH}$$

where:

$mult_{AMEL}$ = statistical multiplier converting minimum LTA to AMEL
$mult_{MDEL}$ = statistical multiplier converting minimum LTA to MDEL
M_A = statistical multiplier converting acute ECA to LTA_{acute}
M_C = statistical multiplier converting chronic ECA to $LTA_{chronic}$

Summary of Water Quality-Based Effluent Limitations
Discharge Point 001, 002, 004, 005, 007, 008, 009, 010, 012
014, 016, 017, 019, and 020

Table F-13. Summary of Water Quality-Based Effluent Limitations

Parameter	Units	Effluent Limitations
1,1-Dichloroethane Low Threat Discharges	µg/L	AMEL 5 MDEL 8
1,1-Dichloroethylene Low Threat Discharges	µg/L	AMEL 0.057 MDEL 0.079

Parameter	Units	Effluent Limitations
1,2-Dichloroethane GET EF, Low Threat Discharges, and GET AB	µg/L	AMEL 0.38 MDEL 0.50
Acetaldehyde GET EF	µg/L	Annual Average 7.3
Chloroform Low Threat Discharges and AC-25	µg/L	AMEL 3 MDEL 5
cis-1,2-Dichloroethylene Low Threat Discharges	µg/L	AMEL 6 MDEL 7
N-Nitrosodimethylamine ARGET, GET EF, GET KA, GET LB, Low Threat Discharges, and GET AB	µg/L	AMEL 0.00069 MDEL 0.0024
Perchlorate Low Threat Discharges	µg/L	AMEL 6 MDEL 15
pH all discharge points	Standard units	Instantaneous Minimum 6.5 Instantaneous Maximum 8.5
Tetrachloroethylene Low Threat Discharges and AC-25	µg/L	AMEL 0.80 MDEL 1.7
Trichloroethylene Low Threat Discharges, AC-18, and AC-25	µg/L	AMEL 2.7 MDEL 6.7

5. Whole Effluent Toxicity (WET)

a. **Acute Toxicity.** The acute aquatic toxicity water quality objective is expressed as a null hypothesis and an alternative hypothesis with a regulatory management decision (RMD) of 0.80, where the following null hypothesis, Ho, shall be used:

Ho: Mean response (ambient water) ≤ 0.80 • mean response (control)

And where the following alternative hypothesis, Ha, shall be used:

Ha: Mean response (ambient water) > 0.80 • mean response (control)

Attainment of the water quality objective is demonstrated by conducting acute aquatic toxicity testing and rejecting this null hypothesis in accordance with the TST statistical approach. When the null hypothesis is rejected, the alternative hypothesis is accepted in its place, and there is no exceedance of the acute aquatic toxicity water quality objective. Failing to reject the null hypothesis (referred to as a "fail") is equivalent to an exceedance of the acute aquatic toxicity water quality objective.

The table below is acute WET testing performed by the Discharger from April 2020 through March 2025.

Table F-14. Acute Whole Effluent Toxicity Testing Results – Test of Significant Toxicity

Discharge Point	Facility Name	Date	Fathead Minnow (*Pimephales promelas*) Survival	
			Pass/Fail	Percent Effect
001	ARGET	5/5/2020	Pass	0
001	ARGET	8/4/2020	Pass	-5.26
001	ARGET	11/3/2020	Pass	0
001	ARGET	2/9/2021	Pass	0
001	ARGET	5/11/2021	Fail	0
001	ARGET	8/19/2021	Pass	0
001	ARGET	11/2/2021	Pass	0
001	ARGET	2/1/2022	Pass	0
001	ARGET	5/4/2022	Fail	5.26
001	ARGET	8/10/2022	Pass	0
001	ARGET	11/1/2022	Fail	5.00
001	ARGET	2/1/2023	Pass	10.00
001	ARGET	5/2/2023	Pass	0
001	ARGET	8/1/2023	Pass	-5.26
001	ARGET	11/2/2023	Pass	-5.26
001	ARGET	2/7/2024	Pass	0
001	ARGET	5/2/2024	Pass	0
001	ARGET	8/21/2024	Pass	0
001	ARGET	11/7/2024	Fail	0
001	ARGET	2/5/2025	Pass	0
002	GET EF	5/5/2020	Pass	0
002	GET EF	8/4/2020	Pass	-5.26
002	GET EF	11/3/2020	Fail	5.00
002	GET EF	2/9/2021	Pass	0
002	GET EF	5/11/2021	Fail	0
002	GET EF	8/19/2021	Pass	0
002	GET EF	11/2/2021	Pass	0
002	GET EF	2/1/2022	Pass	0
002	GET EF	5/4/2022	Fail	5.26
002	GET EF	8/10/2022	Pass	0
002	GET EF	11/1/2022	Fail	5.00
002	GET EF	2/1/2023	Pass	0
002	GET EF	5/2/2023	Fail	5.00
002	GET EF	8/1/2023	Fail	30.00
002	GET EF	11/2/2023	Fail	5.00
002	GET EF	2/7/2024	Pass	0
002	GET EF	5/2/2024	Pass	-5.26
002	GET EF	8/21/2024	Pass	0
002	GET EF	11/7/2024	Pass	10.00

Discharge Point	Facility Name	Date	Fathead Minnow (*Pimephales promelas*) Survival	
			Pass/Fail	Percent Effect
002	GET EF	2/5/2025	Pass	10.00
004	GET HA	5/5/2020	Pass	-5.26
004	GET HA	8/4/2020	Fail	0
004	GET HA	11/3/2020	Pass	0
004	GET HA	2/9/2021	Pass	0
004	GET HA	5/11/2021	Fail	0
004	GET HA	8/19/2021	Pass	0
004	GET HA	11/2/2021	Pass	0
004	GET HA	2/1/2022	Pass	0
004	GET HA	5/4/2022	Fail	15.00
004	GET HA	8/10/2022	Fail	5.00
004	GET HA	11/1/2022	Pass	0
004	GET HA	2/1/2023	Pass	0
004	GET HA	5/2/2023	Pass	0
004	GET HA	9/8/2023	Fail	5.00
004	GET HA	11/2/2023	Pass	0
004	GET HA	2/7/2024	Pass	0
004	GET HA	5/2/2024	Fail	0
004	GET HA	8/21/2024	Pass	0
004	GET HA	11/7/2024	Pass	-5.26
004	GET HA	2/5/2025	Pass	0
005	GET J	5/5/2020	Fail	0
005	GET J	8/4/2020	Fail	0
005	GET J	11/3/2020	Pass	0
005	GET J	2/9/2021	Pass	0
005	GET J	5/11/2021	Pass	-5.26
005	GET J	8/19/2021	Pass	0
005	GET J	11/2/2021	Pass	0
005	GET J	2/1/2022	Fail	10.00
005	GET J	5/4/2022	Fail	5.00
005	GET J	8/10/2022	Pass	0
005	GET J	11/1/2022	Pass	0
005	GET J	2/1/2023	Fail	5.00
005	GET J	5/2/2023	Pass	0
005	GET J	9/8/2023	Pass	0
005	GET J	11/2/2023	Fail	0
005	GET J	2/7/2024	Pass	0
005	GET J	5/2/2024	Pass	0
005	GET J	8/21/2024	Pass	0
005	GET J	11/7/2024	Fail	10.53

Discharge Point	Facility Name	Date	Fathead Minnow (*Pimephales promelas*) Survival	
			Pass/Fail	Percent Effect
005	GET J	2/5/2025	Pass	0
007	GET KA	5/5/2020	Pass	-5.26
007	GET KA	8/4/2020	Pass	-5.26
007	GET KA	11/3/2020	Pass	0
007	GET KA	2/9/2021	Pass	0
007	GET KA	5/11/2021	Pass	-5.26
007	GET KA	8/19/2021	Pass	0
007	GET KA	11/2/2021	Pass	0
007	GET KA	2/1/2022	Pass	0
007	GET KA	5/4/2022	Fail	5.00
007	GET KA	8/10/2022	Pass	0
007	GET KA	11/1/2022	Fail	5.00
007	GET KA	2/1/2023	Fail	5.00
007	GET KA	5/2/2023	Pass	0
007	GET KA	9/8/2023	Pass	-5.26
007	GET KA	11/2/2023	Pass	-5.26
007	GET KA	2/7/2024	Pass	0
007	GET KA	5/2/2024	Fail	5.26
007	GET KA	8/21/2024	Pass	0
007	GET KA	11/7/2024	Pass	-5.26
007	GET KA	2/5/2025	Pass	0
008	GET LA	5/5/2020	Pass	-5.26
008	GET LA	8/4/2020	Pass	-5.26
009	GET LB	5/5/2020	Pass	-5.26
009	GET LB	8/4/2020	Pass	-5.26
009	GET LB	11/3/2020	Pass	0
009	GET LB	2/9/2021	Pass	0
009	GET LB	5/11/2021	Pass	-5.26
009	GET LB	8/19/2021	Pass	0
009	GET LB	11/2/2021	Pass	0
009	GET LB	2/1/2022	Pass	0
009	GET LB	5/4/2022	Pass	0
009	GET LB	8/10/2022	Pass	0
009	GET LB	11/1/2022	Pass	0
009	GET LB	2/1/2023	Pass	0
009	GET LB	5/2/2023	Pass	0
009	GET LB	9/8/2023	Fail	65.00
009	GET LB	11/2/2023	Fail	0
009	GET LB	2/7/2024	Pass	0
009	GET LB	5/2/2024	Pass	-5.26

Discharge Point	Facility Name	Date	Fathead Minnow (*Pimephales promelas*) Survival	
			Pass/Fail	Percent Effect
009	GET LB	8/21/2024	Pass	0
009	GET LB	11/7/2024	Pass	-5.26
009	GET LB	2/5/2025	Pass	0
016	GET AB	5/5/2020	Pass	0
016	GET AB	8/4/2020	Pass	-5.26
016	GET AB	11/3/2020	Fail	5.00
016	GET AB	2/9/2021	Fail	5.00
016	GET AB	5/11/2021	Fail	0
016	GET AB	8/19/2021	Pass	0
016	GET AB	11/2/2021	Fail	5.00
016	GET AB	2/1/2022	Pass	0
016	GET AB	5/4/2022	Pass	-5.26
016	GET AB	8/10/2022	Fail	5.00
016	GET AB	11/1/2022	Fail	10.00
016	GET AB	2/1/2023	Pass	0
016	GET AB	5/2/2023	Pass	0
016	GET AB	8/1/2023	Fail	10.00
016	GET AB	11/2/2023	Pass	0
016	GET AB	2/7/2024	Pass	0
016	GET AB	5/2/2024	Pass	0
016	GET AB	8/21/2024	Pass	10.00
016	GET AB	11/7/2024	Pass	-5.26
016	GET AB	2/5/2025	Fail	5.00
017	WRND GET	5/5/2020	Pass	-5.26
017	WRND GET	8/4/2020	Pass	-5.26
017	WRND GET	11/3/2020	Pass	0
017	WRND GET	2/9/2021	Fail	5.00
017	WRND GET	5/11/2021	Pass	-5.26
017	WRND GET	8/19/2021	Pass	0
017	WRND GET	11/2/2021	Pass	0
017	WRND GET	2/1/2022	Pass	0
017	WRND GET	5/4/2022	Pass	0
017	WRND GET	8/10/2022	Fail	5.00
017	WRND GET	11/1/2022	Pass	0
017	WRND GET	2/1/2023	Pass	0
017	WRND GET	5/2/2023	Pass	0
017	WRND GET	9/8/2023	Pass	0
017	WRND GET	11/2/2023	Pass	0
017	WRND GET	2/7/2024	Pass	0
017	WRND GET	5/2/2024	Pass	-5.26

Discharge Point	Facility Name	Date	Fathead Minnow (*Pimephales promelas*) Survival	
			Pass/Fail	Percent Effect
017	WRND GET	8/21/2024	Pass	0
017	WRND GET	11/7/2024	Pass	0
017	WRND GET	2/5/2025	Pass	0

i. **RPA.** In accordance with section III.C.3.b of the Statewide Toxicity Provisions, an RPA for acute aquatic toxicity was conducted. The basis for the decision to conduct an RPA for acute aquatic toxicity was due to the following reason(s): At least one acute toxicity test was out of compliance with the acute toxicity effluent limits in the previous permit (2023 test result of 35% survival for *Pimephales promelas*).

No dilution has been granted for acute whole effluent toxicity. Therefore, acute toxicity testing has been conducted at an instream waste concentration (IWC) of 100 percent effluent. A test result that fails the Test of Significant Toxicity (TST) demonstrates the discharge has a reasonable potential to cause or contribute to an exceedance of the Statewide Toxicity Provisions aquatic toxicity numeric objectives and Basin Plan's narrative toxicity objective. Based on acute toxicity testing conducted between April 2020 and March 2025 there were one or more fails of the TST, therefore, the discharge has a reasonable potential to cause or contribute to an instream exceedance of the Statewide Toxicity Provisions aquatic toxicity numeric objectives and Basin Plan's narrative toxicity objective.

ii. **WQBELs.** The following effluent limitations have been established for acute whole effluent toxicity at all Discharge Points:

Acute Whole Effluent Toxicity MDEL. No fathead minnows (Pimephales promelas) acute aquatic toxicity test shall result in a "Fail" at the Instream Waste Concentration (IWC) and a percent effect greater than or equal to 50 percent.

Acute Whole Effluent Toxicity MMEL. No more than one Pimephales promelas acute aquatic toxicity tests initiated in a toxicity calendar month shall result in a "Fail" at the Instream Waste Concentration (IWC).

b. **Chronic Toxicity.** The chronic aquatic toxicity water quality objective is expressed as a null hypothesis and an alternative hypothesis with a

regulatory management decision (RMD) of 0.75, where the following null hypothesis, Ho, shall be used.

Ho: Mean response (ambient water) ≤ 0.75 • mean response (control)

And where the following alternative hypothesis, Ha, shall be used:

Ha: Mean response (ambient water) > 0.75 • mean response (control)

Attainment of the water quality objective is demonstrated by conducting chronic aquatic toxicity testing and rejecting this null hypothesis in accordance with 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 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1. When the null hypothesis is rejected, the alternative hypothesis is accepted in its place, and there is no exceedance of the chronic aquatic toxicity water quality objective. Failing to reject the null hypothesis (referred to as a "fail") is equivalent to an exceedance of the chronic aquatic toxicity water quality objective.

To evaluate compliance with the Statewide Toxicity Provisions aquatic toxicity numeric objectives, acute and chronic whole effluent toxicity testing data has been evaluated in the development of this Order.

The tables below is chronic WET testing performed by the Discharger from October 2020 through March 2025 at Discharge Point 001 for the ARGET facility and at Discharge Point 002 for the GET EF facility.

Table F-15. ARGET Chronic Whole Effluent Toxicity Testing Results – Test of Significant Toxicity at the IWC (100 Percent Effluent)

Date	Fathead Minnow (*Pimephales promelas*) Survival		Fathead Minnow (*Pimephales promelas*) Growth		Water Flea (*Ceriodaphnia dubia*) Survival		Water Flea (*Ceriodaphnia dubia*) Reproduction		Green Algae (*Pseudokirchneriella subcapitata*) Growth	
	Pass/ Fail	Percent Effect	Pass/ Fail	Percent Effect	Pass/ Fail	Percent Effect	Pass/ Fail	Percent Effect	Pass/ Fail	Percent Effect
10/27/2020	Pass	0	Pass	-0.77	Pass	0	Pass	-91.89	Pass	-20.02
10/26/2021	Pass	2.50	Pass	-2.07	Pass	0	Pass	0.94	Pass	7.74
11/1/2022	Pass	5.00	Pass	3.71	Fail	10.00	Fail	46.46	Pass	-12.72
11/7/2023	Pass	10.00	Pass	-3.24	Pass	0	Pass	2.11	Pass	-8.42
10/22/2024	Pass	-2.56	Pass	5.69	Pass	0	Pass	-7.92	Pass	-14.69

Table F-16. GET EF Chronic Whole Effluent Toxicity Testing Results – Test of Significant Toxicity at the IWC (100 Percent Effluent)

Date	Fathead Minnow (*Pimephales promelas)* Survival		Fathead Minnow (*Pimephales promelas)* Growth		Water Flea (*Ceriodaphnia dubia)* Survival		Water Flea (*Ceriodaphnia dubia)* Reproduction		Green Algae (*Pseudokirchneriella subcapitata)* Growth	
	Pass/ Fail	Percent Effect	Pass/ Fail	Percent Effect	Pass/ Fail	Percent Effect	Pass/ Fail	Percent Effect	Pass/ Fail	Percent Effect
10/27/2020	Pass	0	Pass	-7.25	Pass	0	Pass	-96.40	Pass	-34.24
10/26/2021	Pass	0	Pass	-2.97	Pass	0	Pass	9.32	Pass	6.56
11/1/2022	Pass	2.50	Pass	-4.37	Fail	10.00	Fail	34.12	Pass	-14.65
11/7/2023	Pass	2.50	Pass	-25.80	Pass	0	Pass	6.53	Pass	-22.39
10/22/2024	Pass	12.50	Pass	-0.99	Pass	0	Pass	-1.98	Pass	-18.36

i. **RPA.** No dilution has been granted for chronic whole effluent toxicity. Therefore, chronic toxicity testing has been conducted at an instream waste concentration (IWC) of 100 percent effluent. A test result that fails the Test of Significant Toxicity (TST) or has a percent effect of greater than 10 percent at the IWC demonstrates the discharge has a reasonable potential to cause or contribute to an exceedance of the Statewide Toxicity Provisions aquatic toxicity numeric objectives. Based on chronic toxicity testing conducted between October 2020 and March 2025 there were one or more fails of the TST **and/or** the percent effect exceeded 10 percent, therefore, the discharge has a reasonable potential to cause or contribute to an instream exceedance of the Statewide Toxicity Provisions' numeric chronic aquatic toxicity objective.

ii. **WQBELs.** The following effluent limitations have been established for chronic whole effluent toxicity at all Discharge Points:

Chronic Whole Effluent Toxicity Maximum Daily Effluent Limitation (MDEL). No water flea (Ceriodaphnia dubia) chronic aquatic toxicity test shall result in a "Fail" at the Instream Waste Concentration (IWC) for the sub-lethal endpoint measured in the test and a percent effect for the survival endpoint greater than or equal to 50 percent.

Chronic Whole Effluent Toxicity Median Monthly Effluent Limitation (MMEL). No more than one Ceriodaphnia dubia chronic aquatic toxicity test initiated in a toxicity calendar month shall result in a "Fail" at the IWC for any endpoint.

D. Final Effluent Limitation Considerations

1. Averaging Periods for Effluent Limitations

40 C.F.R. section 122.45 (d) requires maximum daily and average monthly discharge limitations for all dischargers other than POTWs unless impracticable. The rationale for using alternative averaging periods for acetaldehyde is discussed in section IV.C.3 of this Fact Sheet.

2. Satisfaction of Anti-Backsliding Requirements

The CWA specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in CWA sections 402(o) or 303(d)(4), or, where applicable, 40 C.F.R. section 122.44(l).

The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, with the exception of effluent limitations for perchlorate at Discharge Point 008 for GET LA, perchlorate at Discharge Point 009 for GET LB, perchlorate at Discharge Point 010 for Sailor Bar Park GET, volatile organics at Discharge Point 012 for Low Threat Discharges, trichloroethylene at Discharge Point 014 for AC-18, chlorine residual at Discharge Point 016 for GET AB, NDMA at Discharge Point 017 for WRND GET, and trichloroethylene at Discharge Point 020 for AC-25. The effluent limitations for these pollutants are less stringent than those in Order R5-2020-0051-003. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

a. **CWA section 402(o)(1) and 303(d)(4).** CWA section 402(o)(1) prohibits the establishment of less stringent water quality-based effluent limits "except in compliance with section 303(d)(4)." CWA section 303(d)(4) has two parts: paragraph (A) which applies to nonattainment waters and paragraph (B) which applies to attainment waters.

   i. For waters where standards are not attained, CWA section 303(d)(4)(A) specifies that any effluent limit based on a TMDL or other WLA may be revised only if the cumulative effect of all such revised effluent limits based on such TMDLs or WLAs will assure the attainment of such water quality standards.

   ii. For attainment waters, CWA section 303(d)(4)(B) specifies that a limitation based on a water quality standard may be relaxed where the action is consistent with the antidegradation policy.

   The Buffalo Creek, Alder Creek, Morrison Creek, American River, and Sailor Bar Park Pond are considered attainment waters for perchlorate, chlorine residual, NDMA, and trichloroethylene because the receiving

water is not listed as impaired on the 303(d) list for this constituent. The exceptions in section 303(d)(4) address both waters in attainment with water quality standards and those not in attainment, i.e. waters on the section 303(d) impaired waters list. As discussed in section IV.D.3, below, relaxation or removal of the effluent limits complies with federal and state antidegradation requirements. Thus, relaxation of effluent limitations for trichlorethylene at Discharge Point 014 for AC-18, NDMA at Discharge Point 017 for WRND GET, and trichloroethylene at Discharge Point 020 for AC-25 and removal of the effluent limitations for perchlorate at Discharge Point 008 for GET LA, perchlorate at Discharge Point 009 for GET LB, perchlorate at Discharge Point 010 for Sailor Bar Park GET, volatile organics at Discharge Point 012 for Low Threat Discharges, and chlorine residual at Discharge Point 016 for GET AB from Order R5-2020-0051-003 meets the exception in CWA section 303(d)(4)(B).

b. **CWA section 402(o)(2).** CWA section 402(o)(2) provides several exceptions to the anti-backsliding regulations. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if 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.

As described further in section IV.C.3 of this Fact Sheet, updated information that was not available at the time Order R5-2020-0051-003 was issued indicates that perchlorate at Discharge Point 008 for GET LA, perchlorate at Discharge Point 009 for GET LB, perchlorate at Discharge Point 010 for Sailor Bar Park GET, volatile organics at Discharge Point 012 for Low Threat Discharges, and chlorine residual at Discharge Point 016 for GET AB do not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. Additionally, updated information that was not available at the time Order R5-2020-0051-003 was issued indicates that less stringent effluent limitations for trichloroethylene at Discharge Point 014 for AC-18, NDMA at Discharge Point 017 for WRND GET, and trichloroethylene at Discharge Point 020 for AC-25 satisfy requirements in CWA section 402(o)(2).

The updated information that supports the relaxation of effluent limitations for these constituents includes the following:

i. **Perchlorate at Discharge Point 008 for GET LA.** There are no treatment units for perchlorate at GET LA, and perchlorate was not detected in the influent to GET LA. Effluent monitoring data collected from April 2022 to March 2025 indicates that perchlorate at Discharge

Point 008 for GET LA in the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the WQO.

ii. **Perchlorate at Discharge Point 009 for GET LB.** There are no treatment units for perchlorate at GET LB, and perchlorate was not detected in the influent to GET LB. Effluent monitoring data collected from April 2022 to March 2025 indicates that perchlorate at Discharge Point 009 for GET LB in the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the WQO.

iii. **Perchlorate at Discharge Point 010 for Sailor Bar Park GET.** There are no treatment units for perchlorate at Sailor Bar Perk GET, and perchlorate was not detected in the influent to Sailor Bar Park GET. Effluent monitoring data collected from April 2022 to March 2025 indicates that perchlorate at Discharge Point 010 for Sailor Bar Park GET in the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the WQO.

iv. **Volatile Organics at Discharge Point 012 for Low Threat Discharges.** The Discharger performs frequent influent and effluent monitoring at the Facility and the volatile organics of concern are known. The effluent limitations for volatile organics at Discharge Point 012 for Low Threat Discharges has been replaced with individual WQBELs for the known volatile organics of concern at the Facility.

v. **Trichloroethylene at Discharge Point 014 for AC-18.** There are no treatment units for trichloroethylene at AC-18, therefore effluent limits based on the technology-based effluent limitations for volatile organics do not apply. Discharges from Discharge Point 012 for Low Threat Discharges include discharges from AC-18. AC-18 was operated as described in Order R5-2020-0051-003 for discharge to Discharge Point 012. Therefore, data from Discharge Point 012 for Low Threat Discharges is also representative of Discharge Point 014 for AC-18. Discharge Point 012 for Low Threat Discharges does not have reasonable potential to cause or contribute to an exceedance of the WQO for trichloroethylene; however, trichloroethylene is a constituent of concern at Discharge Point 012 for Low Threat Discharges and Discharge Point 014 for AC-18. Therefore, WQBELs for trichloroethylene have been established at Discharge Point 014 for AC-18 for the protection of the beneficial uses of the receiving water.

vi. **Chlorine Residual at Discharge Point 016 for GET AB.** Chlorine is no longer used for influent disinfection at GET AB. Effluent monitoring data collected from April 2022 to March 2025 indicates that chlorine residual at Discharge Point 016 for GET AB in the discharge does not

exhibit reasonable potential to cause or contribute to an exceedance of the NAWQC criterion for chlorine.

vii. **NDMA at Discharge Point 017 for WRND GET.** Order R5-2020-0051-003 includes effluent limitations for NDMA at Discharge Point 017 based on TBELs for NDMA. WRND GET does not have treatment units for NDMA removal, so the TBELs do not apply. However, the Discharger plans to install low-watt UV treatment units for NDMA at WRND GET within the next two years. The Discharger performed a study on the technical and economic implications of treating NDMA at GET J to 0.002 µg/L. The studies showed that there is a significant reduction in treatment efficiency below a concentration of 0.01 µg/L, and even less efficiency below 0.007 µg/L. It was estimated that there would be approximately $50 million in increased costs (30-year net present worth) to reduce the effluent from 0.010 µg/L to 0.002 µg/L, assuming power cost per kilowatt/hour remained constant. The Discharger's study concluded that treating to 0.007 µg/L was both technically achievable and cost-effective for future GET facilities using the low-watt UV technology to remove NDMA from groundwater. The TBELs for NDMA at Discharge Point 017 for WRND GET have been updated in correspondence with the low-watt UV technology that will be installed at WRND GET based on the study.

viii. **Trichloroethylene at Discharge Point 020 for AC-25.** There are no treatment units for trichloroethylene at AC-25, therefore effluent limits based on the technology-based effluent limitations for volatile organics do not apply. Discharges from Discharge Point 012 for Low Threat Discharges include discharges from AC-25. AC-25 was operated as described in Order R5-2020-0051-003 for discharge to Discharge Point 012. Therefore, data from Discharge Point 012 for Low Threat Discharges is also representative of Discharge Point 020 for AC-25. Discharge Point 012 for Low Threat Discharges does not have reasonable potential to cause or contribute to an exceedance of the WQO for trichloroethylene; however, trichloroethylene is a constituent of concern at Discharge Point 012 for Low Threat Discharges and Discharge Point 020 for AC-25. Therefore, WQBELs for trichloroethylene have been established at Discharge Point 014 for AC-18 for the protection of the beneficial uses of the receiving water.

3. Antidegradation Policies

This Order does not authorize lowering water quality as compared to the level of discharge authorized in the previous order, which is the baseline by which to measure whether degradation will occur. This Order does not allow for an increase in flow or mass of pollutants to the receiving water. The Order requires compliance with applicable federal technology-based standards and with WQBELs where the discharge could have the reasonable potential to cause or

contribute to an exceedance of water quality standards. Accordingly, the permitted discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and the State Anti-Degradation Policy.

This Order removes effluent limitations for perchlorate at Discharge Point 008 for GET LA, perchlorate at Discharge Point 009 for GET LB, perchlorate at Discharge Point 010 for Sailor Bar Park GET, volatile organics at Discharge Point 012 for Low Threat Discharges, and chlorine residual at Discharge Point 016 for GET AB based on updated monitoring data demonstrating that the effluent does not cause or contribute to an exceedance of the applicable water quality criteria or objectives in the receiving water. This Order relaxes effluent limitations for trichloroethylene at Discharge Point 014 for AC-18, NDMA at Discharge Point 017 for WRND GET, and trichloroethylene at Discharge Point 020 for AC-25 based on updated information that was not available at the time Order R5-2020-0051-003 was issued.

The removal and relaxation of effluent limitations for these parameters will not result in an increase in pollutant concentration or loading, a decrease in the level of treatment or control, or a reduction of water quality. Therefore, the Central Valley Water Board finds that the removal and relaxation of the effluent limitations does not result in an increase in pollutants or any additional degradation of the receiving water. Thus, the removal and relaxation of effluent limitations are consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and the State Anti-Degradation Policy.

This Order also removes mass-based effluent limitations for 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,2-Dichloroethane, 1,4-Dioxane, chloroform, acetaldehyde, acrylamide, cis-1,2-Dichloroethylene, formaldehyde, freon 113, NDMA, perchlorate, tetrachloroethylene, and trichloroethylene based on 40 CFR parts 122.45 (d) and (f). The removal of the mass-based effluent limits for 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,2-Dichloroethane, 1,4-Dioxane, chloroform, acetaldehyde, acrylamide, cis-1,2-Dichlrorethylene, formaldehyde, freon 113, NDMA, perchlorate, tetrachloroethylene, and trichloroethylene will not result in a decrease in the level of treatment or control or a reduction in water quality.

Furthermore, both concentration-based AMELs, MDELs, or annual average effluent limitations remain for 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,2-Dichloroethane, 1,4-Dioxane, chloroform, acetaldehyde, acrylamide, cis-1,2-Dichlrorethylene, formaldehyde, freon 113, NDMA, perchlorate, tetrachloroethylene, and trichloroethylene, as well as maximum daily design flow prohibition that limits the amount of flow that can be discharged to the receiving water daily. The combination of concentration-based effluent limits and a flow prohibition in this Order are equivalent to mass-based effluent limitations, which were redundant limits contained in previous Orders by multiplying the concentration-based effluent limits and permitted maximum daily

design flow by a conversion factor to determine the mass-based effluent limitations. The Central Valley Water Board finds that the removal of the mass-based effluent limits for 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,2-Dichloroethane, 1,4-Dioxane, chloroform, acetaldehyde, acrylamide, cis-1,2-Dichlrorethylene, formaldehyde, freon 113, NDMA, perchlorate, tetrachloroethylene, and trichloroethylene does not result in an allowed increase in pollutants or any additional degradation of the receiving water. Thus, the removal of the mass-based effluent limits for 1,1-Dichloroethane, 1,1-Dichloroethylene, 1,2-Dichloroethane, 1,4-Dioxane, chloroform, acetaldehyde, acrylamide, cis-1,2-Dichlrorethylene, formaldehyde, freon 113, NDMA, perchlorate, tetrachloroethylene, and trichloroethylene is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and the State Antidegradation Policy.

a. **Surface Water.** The permitted surface water discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and the State Anti-degradation Policy. Compliance with these requirements will result in the use of BPTC of the discharge. The impact on existing water quality will be insignificant.

b. **Groundwater.** The Discharger utilizes Rebel Hill Ditch for land discharge of treated groundwater. Treated groundwater contains constituents such as total dissolved solids (TDS), specific conductivity, organic compounds, and metals. Percolation from Rebel Hill Ditch may result in an increase in the concentration of these constituents in groundwater. The State Anti-Degradation Policy generally prohibits the Central Valley Water Board from authorizing activities that will result in the degradation of high-quality waters unless it has been shown that:

   i. The degradation will not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives;

   ii. The degradation will not unreasonably affect present and anticipated future beneficial uses;

   iii. The discharger will employ BPTC to minimize degradation; and

   iv. The degradation is consistent with the maximum benefit to the people of the state.

   Some degradation of groundwater may be consistent with the State Anti-Degradation Policy provided that the Discharger is implementing BPTC measures. The Facility is designed to treat contaminated groundwater for known constituents of concern which includes NDMA, perchlorate, and VOCs. The Discharger uses treatment systems specifically designed to treat these constituents to improve groundwater quality by reducing

groundwater contamination. This level of treatment may result in limited groundwater degradation not exceeding water quality objectives. Providing groundwater treatment to the community is in the best interest of the people of the state. The Discharger's treatment constitutes BPTC and complies with the State Anti-Degradation Policy.

4. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on cis-1,2-Dichloroethylene, chloroform, NDMA, perchlorate, trichloroethylene, and volatile organics. Restrictions on cis-1,2-Dichloroethylene, chloroform, NDMA, perchlorate, trichloroethylene, and volatile organics are discussed in section IV.B.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 WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to 40 C.F.R. section 131.38. The procedures for calculating the individual WQBELs for priority pollutants are based on the CTR implemented by the SIP, which was approved by U.S. EPA on 18 May 2000. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Summary of Final Effluent Limitations
Discharge Point 001, 002, 004, 005, 007, 008, 009, 010, 012
014, 016, 017, 019, and 020

Table F-17. Summary of Final Effluent Limitations

Discharge Point	Parameter	Units	Effluent Limitations	Basis
001	1,1-Dichloroethane	µg/L	AMEL 0.5 MDEL 0.7	TB
001	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
001	Chloroform	µg/L	AMEL 0.5 MDEL 0.7	TB
001	cis-1,2-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
001	N-Nitrosodimethylamine	µg/L	AMEL 0.00069 MDEL 0.0024	CTR
001	Perchlorate	µg/L	AMEL 4 MDEL 6	TB

Discharge Point	Parameter	Units	Effluent Limitations	Basis
001	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
001	Tetrachloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
001	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
002	1,1-Dichloroethane	µg/L	AMEL 0.5 MDEL 0.7	TB
002	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
002	1,2-Dichloroethane	µg/L	AMEL 0.38 MDEL 0.5	CTR
002	Acetaldehyde	µg/L	Annual Average 7.3	PB
002	Chloroform	µg/L	AMEL 0.5 MDEL 0.7	TB
002	cis-1,2-Dichloroethylene	µg/L	AMEL 1.5 MDEL 1.5	TB
002	N-Nitrosodimethylamine	µg/L	AMEL 0.00069 MDEL 0.0024	CTR
002	Perchlorate	µg/L	AMEL 6.0 MDEL 10	TB
002	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
002	Tetrachloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
002	Trichloroethylene	µg/L	AMEL 1.5 MDEL 1.5/3.0 (see table note 2)	TB
004	Chloroform	µg/L	AMEL 2 MDEL 5	TB
004	Perchlorate	µg/L	AMEL 4 MDEL 6	TB
004	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
004	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
005	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
005	Chloroform	µg/L	AMEL 3 MDEL 5	TB
005	cis-1,2-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB

Discharge Point	Parameter	Units	Effluent Limitations	Basis
005	N-Nitrosodimethylamine	µg/L	AMEL 0.007 MDEL 0.01	TB
005	Perchlorate	µg/L	AMEL 4 MDEL 6	TB
005	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
005	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
007	Chloroform	µg/L	AMEL 0.5 MDEL 0.7	TB
007	N-Nitrosodimethylamine	µg/L	AMEL 0.00069 MDEL 0.0024	CTR
007	Perchlorate	µg/L	AMEL 4 MDEL 6	TB
007	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
007	Tetrachloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
007	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
008	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
008	N-Nitrosodimethylamine	µg/L	AMEL 0.007 MDEL 0.01	TB
008	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
008	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
009	N-Nitrosodimethylamine	µg/L	AMEL 0.00069 MDEL 0.0024	CTR
009	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
009	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
010	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
010	cis-1,2-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
010	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
010	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB

Discharge Point	Parameter	Units	Effluent Limitations	Basis
012	1,1-Dichloroethane	µg/L	AMEL 5 MDEL 8	MCL
012	1,1-Dichloroethylene	µg/L	AMEL 0.057 MDEL 0.079	CTR
012	1,2-Dichloroethane	µg/L	AMEL 0.38 MDEL 0.5	CTR
012	Chloroform	µg/L	AMEL 3 MDEL 5	MCL, PB
012	cis-1,2-Dichloroethylene	µg/L	AMEL 6 MDEL 7	MCL
012	N-Nitrosodimethylamine	µg/L	AMEL 0.00069 MDEL 0.0024	CTR
012	Perchlorate	µg/L	AMEL 6 MDEL 15	MCL
012	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
012	Tetrachloroethylene	µg/L	AMEL 0.8 MDEL 1.7	CTR
012	Trichloroethylene	µg/L	AMEL 2.7 MDEL 6.7	CTR
014	Perchlorate	µg/L	AMEL 4 MDEL 6	TB
014	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
014	Trichloroethylene	µg/L	AMEL 2.7 MDEL 6.7	CTR
016	1,1-Dichloroethane	µg/L	AMEL 0.5 MDEL 0.7	TB
016	1,1-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
016	1,2-Dichloroethane	µg/L	AMEL 0.38 MDEL 0.5	CTR
016	Chloroform	µg/L	AMEL 0.5 MDEL 0.7	TB
016	cis-1,2-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
016	Freon 113	µg/L	AMEL 0.5 MDEL 0.7	TB
016	N-Nitrosodimethylamine	µg/L	AMEL 0.00069 MDEL 0.0024	CTR
016	Perchlorate	µg/L	AMEL 4 MDEL 6	TB

Discharge Point	Parameter	Units	Effluent Limitations	Basis
016	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
016	Tetrachloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
016	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
017	1,1-Dichloroethane	µg/L	AMEL 0.5 MDEL 0.7	TB
017	Chloroform	µg/L	AMEL 0.5 MDEL 0.7	TB
017	cis-1,2-Dichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
017	N-Nitrosodimethylamine	µg/L	AMEL 0.007 MDEL 0.01	TB
017	Perchlorate	µg/L	AMEL 4 MDEL 6	TB
017	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
017	Tetrachloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
017	Trichloroethylene	µg/L	AMEL 0.5 MDEL 0.7	TB
019	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
020	Chloroform	µg/L	AMEL 3 MDEL 5	MCL, PB
020	Perchlorate	µg/L	AMEL 4 MDEL 6	TB
020	pH	Standard units	Instantaneous Max 8.5 Instantaneous Min 6.5	BP
020	Tetrachloroethylene	µg/L	AMEL 0.8 MDEL 1.7	CTR
020	Trichloroethylene	µg/L	AMEL 2.7 MDEL 6.7	CTR

Table F-17 Notes:

1. **TB** – Based on treatment technology capability
   PB – Based on facility performance
   BP – Based on water quality objectives contained in the Basin Plan.
   CTR – Based on water quality criteria contained in the California Toxics Rule and applied as specified in the SIP.
   MCL – Based on the Primary Maximum Contaminant Level.

5. Effluent Limitations Carried Forward from Previous Order

The following effluent limitations have been carried forward from Order R5-2020-0051-003. There is insufficient information to re-evaluate the reasonable potential of the constituent or recalculated effluent limitations. The effluent limitations have been carried forward to protect water quality and the beneficial uses of the receiving waters until further information can be obtained. Reasonable potential and stringency of effluent limitations will be reassessed during the next permit renewal.

Table F-18. Effluent Limitations Carried Forward

Discharge Point	Parameter	Units	Effluent Limitations
001	1,4-Dioxane	µg/L	AMEL 3 MDEL 6
002	1,4-Dioxane	µg/L	AMEL 3 MDEL 6
002	Acrylamide	µg/L	AMEL 0.05 MDEL 0.05
002	Formaldehyde	µg/L	AMEL 50 MDEL 50
012	1,4-Dioxane	µg/L	MDEL 10
019	Copper, Total	mg/L	MDEL 0.70

E. Interim Effluent Limitations – NOT APPLICABLE

F. Land Discharge Specifications

1. The Land Discharge Specifications are necessary to protect the beneficial uses of the groundwater.

G. Recycling Specifications – NOT APPLICABLE

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

On 4 March 2025, the U.S. Supreme Court issued a decision in the case of the City and County of San Francisco vs. U.S. Environmental Protection Agency (2025) 145 U.S. 704, which challenged some of the limits in NPDES permits. The Court ruled that “end result” provisions (e.g. receiving water limitations) are not allowed by the federal Clean Water Act and that NPDES permits must have specific requirements to meet water quality objectives and protect beneficial uses. Based on this ruling, no receiving water limitations are included in this Order.

The Clean Water Act and implementing regulations specify that effluent limitations are required when there is reasonable potential for a discharge to cause or

contribute to an exceedance of any applicable water quality standard. A Reasonable Potential Analysis (RPA) is a key step taken by permit writers to determine if a discharge has the potential to violate water quality standards. An RPA includes characterization of the effluent and receiving waters and an assessment of the water quality standards to see if projected concentrations in the receiving water after mixing with the effluent have the "reasonable potential" (RP) to exceed the water quality criteria. Effluent limitations and other permit conditions are prescribed based on an evaluation of this information. RPAs and effluent limitation calculations follow established NPDES program procedures and requirements (State Water Resources Control Board, 2005 and U.S. Environmental Protection Agency, 1991).

This Order also requires regular effluent and receiving water sampling to document any potential effects to the receiving water. In addition, this Order requires characterization monitoring of priority pollutants in the upstream receiving water and effluent during the permit term. All Central Valley NPDES permits contain a general re-opener provision that allow the Central Valley Water Board to amend the permit and include conditions, effluent limitations, provisions, or prohibitions. This would include scenarios where monitoring data indicate the need for new effluent limitations to ensure receiving water quality objectives are met. As an additional assurance, this Order prohibits operational changes that would significantly impact the character of the waste discharge.

Nonetheless, the question remains as to whether an NPDES permit is adequately protective of water quality when the receiving water limitations are removed; or alternatively, whether additional conditions should be considered when removing receiving water limitations.

1. Below is a summary of the specific considerations for the removal of receiving water limitations. These considerations include associated effluent limitations, best management practices (BMPs) and/or water quality monitoring requirements.

    a. **Bacteria.** On 7 August 2018 the State Water Board adopted Resolution No. 2018-0038 establishing Bacteria Provisions, which are specifically titled "Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Bacteria Provisions and a Water Quality Standards Variance Policy" and "Amendment to the Water Quality Control Plan for Ocean Waters of California—Bacteria Provisions and a Water Quality Standards Variance Policy." The Bacteria Water Quality Objectives established in the Bacteria Provisions supersede any numeric water quality objective for bacteria for the REC-1 beneficial use contained in a water quality control plan before the effective date of the Bacteria Provision. However, the Statewide Bacteria Provisions provide that where a permit, waste discharge requirement (WDR), or waiver of WDR includes an effluent limitation or discharge requirement that is derived from a water quality objective or other guidance to control bacteria (for any beneficial use) that is more stringent

than the Bacteria Water Quality Objective, the Bacteria Water Quality Objective would not be implemented in the permit, WDR, or waiver of WDR. Since this Order includes effluent limitations and discharge requirements equivalent to the DDW Title 22 disinfected tertiary reclamation criteria that are more stringent than the Statewide Bacteria Objectives, the Statewide Bacteria Objectives have not been implemented in this Order.

The Facility is a groundwater clean-up site to treat known constituents of concern that contaminated the groundwater based on previous rocket manufacturing and testing operations. Total coliform is not a constituent of concern in the extracted groundwater and not expected to be in the effluent since the wastewater is not sourced from municipal wastewater.

b. **Biostimulatory Substances and Dissolved Oxygen requirements.** The Basin Plan contains a biostimulatory narrative water quality objective (WQO) and dissolved oxygen numeric water quality objectives that have been incorporated into previous permits as receiving water limitations. Biostimulatory substances and low dissolved oxygen can cause eutrophication and excessive algal growth in the receiving water along with other water quality issues related to taste, odor, color and toxicity. Discharges with high Biological Oxygen Demand (BOD) and/or Chemical Oxygen Demand (COD) may contribute to dissolved oxygen problems downstream.

   Biostimulatory substances and dissolved oxygen are not constituents of concern in the extracted groundwater and not expected to be in the effluent since the wastewater is not sourced from municipal wastewater. However, this Order requires dissolved oxygen monitoring in the effluent and receiving waters. This Order also requires frequent visual monitoring of the receiving water for fungi, slimes, or objectionable growths as an indication of the effects of the effluent to the receiving water from biostimulatory substances and decreased dissolved oxygen.

c. **Chemicals, Pesticides, and Radioactive requirements.** The Basin Plan has narrative and numeric water quality objectives for chemicals, pesticides, and radionuclides that are typically used as receiving water limitations in NPDES permits. As with other water quality constituents, NPDES regulations require effluent limitations where existing data indicate reasonable potential to cause or contribute to an exceedance in the receiving water. Attachments G and H provide details regarding the specific chemical constituents with reasonable potential and associated effluent limitations. These effluent limitations ensure the protection of beneficial uses in the receiving water. There is no RP based on existing data for any radioactive constituents or pesticides on the characterization monitoring list.

   This Order includes effluent limitations for total recoverable copper at Cooling Tower 20019 and monitoring of the effluent and receiving water for copper.

This Order also includes effluent limits and routine monitoring for known chemicals of concern in the groundwater from historical manufacturing and testing operations at the Discharger's site.

d. **Color, Taste, and Odors requirements.** The Basin plan has a narrative water quality objective for color as well as one for taste and odors. These have been incorporated into previous permits as receiving water limitations. Color, taste, and odors are rarely concerns for treated groundwater discharges in the Central Valley, and no effluent limitations are included in this permit. However, frequent visual monitoring of the receiving water for discoloration and other potential nuisance conditions is required.

e. **pH requirements.** The Basin Plan has narrative water quality objectives for pH that have been used as receiving water limitations in previous permits. A pH that is too high or too low can influence the solubility of metals and nutrients in the receiving water and impact the overall health of aquatic life.

   The discharge has RP for pH based on existing data. Therefore, the permit includes pH effluent limitations and requires frequent monitoring of pH in the receiving water.

f. **Temperature requirements.** The Basin Plan has numeric receiving water limitations for receiving waters with beneficial uses of COLD or WARM to ensure the wastewater does not significantly increase the receiving water temperature above the natural receiving water temperature. Significant changes in temperature can affect the ability of aquatic organisms to survive in the receiving water.

   There is no RP for temperature based on existing data. This Order does include frequent monitoring of temperature in the receiving water. This Order also requires a thermal impact study at Outfall 008 to the American River at Natomas Stilling Basin and Outfall 009 at Alder Creek to demonstrate that the discharge will not cause an adverse thermal impacts on the receiving waters, including a mixing zone study, and an assessment of the potential impacts to the Nimbus and American River fish hatchery. The study must demonstrate that the discharge will meet the Water Quality Objectives for temperature found in the Basin Plan.

g. **Toxicity requirements.** The Basin Plan contains a narrative water quality objective for toxicity that has been incorporated into previous permits as a receiving water limitation. However, with the adoption of the Statewide Toxicity Provisions (State Water Resources Control Board, 2021) in 2023, numeric aquatic toxicity water quality objectives were established along with required effluent limitations and/or targets for non-stormwater NPDES permits to ensure the protection of aquatic life beneficial uses in receiving waters. Elevated levels of ammonia are also known to be toxic to aquatic organisms.

This Order includes chronic whole effluent toxicity effluent limitations and requires frequent monitoring of chronic whole effluent toxicity. There is no RP for ammonia in the effluent.

h. **Turbidity requirements.** The Basin Plan includes numeric turbidity water quality objectives that are based on existing turbidity in the receiving waters. These have been incorporated into previous permits as receiving water limitations.

The discharge does not have reasonable potential or effluent limitations for turbidity, however the permit requires frequent monitoring of turbidity in the receiving waters. Turbidity is not a constituent of concern in the extracted groundwater and not expected to be in the effluent since the wastewater is not sourced from municipal wastewater; however, the Discharger does remove sediment from the influent via use of bag filters and sand separators.

i. **Floating Material, Oil and Grease, Suspended Sediments, Suspended Material, and Settleable Substances requirements.** The previous permit contained receiving water limitations relative to narrative water quality objectives in the Basin Plan for Floating Material, Oil and Grease, Suspended Sediments, Suspended Material and Settleable Substances. These constituents can affect water quality by reducing water clarity and light penetration which can ultimately lead to increased water temperatures, decreased dissolved oxygen levels, and eutrophication. Contamination from these substances can impact both aquatic and human health.

This Order requires frequent visual monitoring in the receiving waters for floating material, visible films, sheens or coating, suspended matter, and bottom deposits.

2. **Review of Other Relevant Factors**

In addition to the considerations listed in section V.A.1 above, Central Valley Water Board staff also considered the other relevant factors below in the review of receiving water limitations.

a. **Synergistic effects.** Is there a known concern that the discharge will combine with the receiving water and produce adverse synergistic effects? For example, surface water discharges may be fully compliant with dissolved oxygen and narrative objectives, but may combine with poor conditions in the receiving water to cause harmful algal blooms (HABs), eutrophication, dissolved oxygen sag, toxic effects, taste and odor, and other harmful conditions. Is there the concern that the discharge when combined with the receiving water would have color concerns (e.g., mine discharge, floc due to pH change, etc.)?

There are no known concerns for adverse synergistic effects in the receiving water.

b. **Limitations enforced within the receiving water.** Are there specific chemicals or pesticides that have Basin Plan objectives that are not enforced through effluent limitations? For example, certain organochlorine pesticides effluent limitations are based on numeric water quality objectives consistent with applicable regulations. However, more stringent Basin Plan objectives require the receiving water to be “non-detect” for these materials. In these circumstances, removing the receiving water limitation would result in reduced protections that are required under federal and state regulations.

   The discharge does not demonstrate exceedances of the Basin Plan’s receiving water quality objectives for this category of chemicals and/or pesticides.

c. **Other site-specific information.** Are there any special studies that have been conducted in the receiving water body/watershed or impairments that relate to existing receiving water limitations?

   This Order considers the Clean Water Act 303(d) List of Impaired Water Bodies when they are developed. The receiving water has no Total Maximum Daily Load (TMDL) requirements.

   Salinity constituents are also a concern in Central Valley water bodies. The Discharger submitted a Notice of Intent for the Salinity Control Program indicating its intent to meet the Alternative Salinity Permitting Approach.

d. **Data characterization.** Have the effluent and receiving water been fully characterized?

   This Order requires characterization monitoring in the effluent and receiving water every permit term. A full scan of priority pollutants and other constituents of concern is required.

e. **Compliance history.** Has the facility had any compliance issues meeting receiving water limitations during the most recent permit term (e.g., received a Notice of Violation for exceeding a receiving water limitation)? Overall, does the facility have any ongoing compliance issues (e.g., frequent operational upsets).

   The Facility does not have ongoing compliance issues.

3. **Review of Receiving Water Limitations.**

Based on Central Valley Water Board staff review of the considerations presented above, existing permit provisions are adequate to ensure the Facility discharge consistently meets federal and state regulations for the protection of beneficial uses in the receiving water. The effluent limitations and receiving water monitoring in this Order along with the permit prohibitions and reopener provisions provide a multi-pronged approach to ensuring water quality standards are met. As such, receiving water limitations from the previous permit can be removed without the inclusion of additional conditions.

Table F-19. Receiving Water Limitations Review

Receiving Water Limitations Removed	Effluent Limitations and/or Monitoring	Other Relevant Factors
Bacteria (Numeric WQO)	No reasonable potential (RP), and receiving water limitation is not needed since the wastewater is not sourced from municipal wastewater.	
Biostimulatory Substances (Narrative WQO)	No RP based on effluent data, and receiving water limitation is not needed since the wastewater is not sourced from municipal wastewater.	
Chemical Constituents (Narrative WQO)	Copper effluent limitation and monitoring is required in the effluent and receiving water.	Quarterly priority pollutant characterization monitoring (effluent and upstream receiving water) from 1 July 2027 through 30 June 2028.
Chemical Constituents (Narrative WQO)	Monitoring for EC is required in the effluent and receiving water. Effluent limits and routine monitoring for known chemicals of concern in the groundwater from historical manufacturing and testing operations, and for copper at Cooling Tower 20019.	Participation in the Salinity Control Program Alternative permitting approach.
Color (Narrative WQO)	Visual monitoring (monthly) for discoloration is required in receiving water.	
Dissolved Oxygen (Numeric WQO)	No RP, wastewater is not sourced from municipal wastewater. Monitoring of dissolved oxygen is required in the effluent and receiving water.	
Floating Material (Narrative WQO)	Visual monitoring (monthly) is required in receiving water.	

Receiving Water Limitations Removed	Effluent Limitations and/or Monitoring	Other Relevant Factors
Oil and Grease (Narrative WQO)	Visual monitoring (monthly) of visible films, sheens, or coatings is required in the receiving water.	
pH (Numeric WQO)	pH effluent limitations are included. Monitoring for pH is required in the effluent and receiving water.	
Pesticides (Narrative/Numeric WQO)	No RP for pesticides in the characterization monitoring list.	Quarterly priority pollutant characterization monitoring (effluent and upstream receiving water) from 1 July 2027 through 30 June 2028.
Radioactivity (Narrative/Numeric WQO)	No RP for radioactive constituents in the characterization monitoring list.	Quarterly priority pollutant characterization monitoring (effluent and upstream receiving water) from 1 July 2027 through 30 June 2028.
Suspended Sediments (Narrative WQO)	No RP based on effluent data. Visual monitoring (monthly) of suspended matter is required in the receiving water.	
Settleable Substances (Narrative WQO)	No RP based on effluent data. Visual monitoring (monthly) for bottom deposits is required in the receiving water.	
Suspended Material (Narrative WQO)	No RP based on effluent data. Visual monitoring (monthly) of suspended matter is required in the receiving water.	
Taste and Odors (Narrative WQO)	No RP based on effluent data. Monitoring (monthly) of potential nuisance conditions is required in the receiving water.	
Temperature (Numeric WQO)	No RP based on effluent data. Monitoring for temperature is required in the effluent and receiving water. Thermal impact study required before commencing discharge to Outfall 008 and 009.	
Toxicity (Narrative WQO)	No RP for ammonia based on effluent data.	

Receiving Water Limitations Removed	Effluent Limitations and/or Monitoring	Other Relevant Factors
Toxicity (Narrative WQO)	Acute and Chronic Whole Effluent Toxicity effluent limitations.	
Turbidity (Numeric WQO)	No effluent limitation Since the wastewater is not sourced from municipal wastewater. Monitoring for turbidity is required in the effluent and receiving water.	

B. Groundwater

1. The beneficial uses of the underlying groundwater are municipal, industrial service supply, industrial process supply, and agricultural supply.

2. Groundwater limitations are required to protect the beneficial uses of the underlying groundwater.

3. Basin Plan water quality objectives include narrative objectives for chemical constituents, tastes and odors, and toxicity of groundwater. The toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants, animals, or aquatic life. The chemical constituents objective states that groundwater shall not contain chemical constituents in concentrations that adversely affect any beneficial use. The tastes and odors objective prohibits taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses. The Basin Plan also establishes numerical water quality objectives for chemical constituents and radioactivity in groundwaters designated as municipal. The Basin Plan requires the application of the most stringent objective necessary to ensure that waters do not contain chemical constituents, toxic substances, radionuclides, taste- or odor- producing substances, or bacteria in concentrations that adversely affect MUN, agricultural supply, industrial supply or some other beneficial use.

4. Groundwater limitations establish that the release of waste constituents from any portion of the Facility shall not cause or contribute to the exceedance of water quality objectives in the receiving water. If the Facility's discharge contains waste at a level greater than a water quality objective but the groundwater receiving the waste remains below the water quality objective, the limitation would not be violated. However, if the same discharge causes the receiving water to exceed a water quality objective, the groundwater limitation would be violated. Similarly, if the same discharge is above the water quality objective and the receiving water is above the objective, the Facility's discharge would be contributing to an exceedance of the water quality objective and would be violating the receiving water limitation. In the scenario where the level of waste in the Facility's discharge is below the water quality objective and the receiving water exceeds

the water quality objective, the limitation would not be violated. Where natural background conditions exceed the water quality objective, compliance would be evaluated considering the established natural background concentration instead of the water quality objective. Only discharges causing or contributing to the exceedance of the water quality objective or natural background concentration (if greater than the water quality objective) in the groundwater would be in violation of the limitation.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. establish conditions that apply to all state issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) of 40 C.F.R. allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

a. **Mercury.** This provision allows the Central Valley Water Board to reopen this Order in the event mercury is found to be causing toxicity based on acute or chronic toxicity test results, or if a TMDL program is adopted. In addition, this Order may be reopened if the Central Valley Water Board determines that a mercury offset program is feasible for dischargers subject to NPDES permits.

b. **Water Effects Ratio (WER) and Metal Translators.** A default WER of 1.0 has been used in this Order for calculating criteria for applicable inorganic constituents. If the Discharger performs studies to determine site-specific WERs and/or site-specific dissolved-to-total metal translators, this Order may be reopened to modify the effluent limitations for the applicable inorganic constituents.

c. **Constituent Study.** There are indications that the discharge may contain constituents that have a reasonable potential to cause or contribute to an exceedance of water quality objectives. This Order requires the Discharger to complete a study of these constituents' potential effect in the receiving water. This reopener provision allows the Central Valley Water Board to reopen this Order for addition of effluent limitations and requirements for these constituents if after review of the study results it is determined that the discharge has reasonable potential to cause or contribute to an exceedance of a water quality objective.

d. **Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS).** On 17 January 2020, certain Basin Plan Amendments to incorporate new strategies for addressing ongoing salt and nitrate accumulation in the Central Valley became effective. Other provisions subject to U.S. EPA approval became effective on 2 November 2020, when approved by U.S. EPA. As the Central Valley Water Board moves forward to implement those provisions that are now in effect, this Order may be amended or modified to incorporate new or modified requirements necessary for implementation of the Basin Plan Amendments. More information regarding these Amendments can be found on the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) web page: (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/)

e. **Whole Effluent Toxicity.** This Order may be reopened for modification to revise the aquatic toxicity provisions if the Supreme Court determines that the test of significant toxicity cannot be used in NPDES permits and the State Water Board suspends or revises the aquatic toxicity water quality standards. See Fact Sheet Section III.C.1.c for more information.

If after review of new data and information, it is determined that the discharge has reasonable potential to cause or contribute to an instream exceedance of the Statewide Toxicity Provisions' numeric chronic aquatic toxicity objective and Basin Plan's narrative toxicity objective this Order may be reopened and effluent limitations added for acute and/or chronic toxicity.

2. Special Studies and Additional Monitoring Requirements

a. **Toxicity Reduction Evaluation (TRE) Requirements.** Pursuant to the Toxicity Provisions, the Discharger is required to initiate a TRE when any combination of two or more **MDEL or MMEL exceedances** occur within a single toxicity calendar month or within two successive toxicity 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), the Central Valley Water Board may require a TRE. A TRE may also be required when there is no

effluent available to complete a routine monitoring test or **MMEL** compliance test. MRP Section V.H. provides additional details regarding the TRE.

b. **Thermal Impacts Associated with Discharge to Outfall 008 or 009.** The Discharger is not permitted to discharge to Outfall 008 and/or 009 until an adequate thermal impact assessment is completed for Outfall 008 and/or 009 that demonstrates that the discharge will not cause an unacceptable thermal impact on the receiving water as described in WDR section VI.C.2.b and the Discharger meets the requirements of WDR section VI.C.6.b. The study must demonstrate that the discharge will meet the Water Quality Objectives for temperature found in the Basin Plan.

3. Best Management Practices and Pollution Prevention

a. **2,3,7,8-TCDD and Other Dioxin and Furan Congeners Source Evaluation and Minimization Plan.** The Discharger shall prepare a 2,3,7,8-TCDD and other dioxin and furan congeners evaluation and minimization plan to address sources of detectable dioxins (1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin at Discharge Point 001 and 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin, 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin, 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin, 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin, and 1,2,3,7,8-Pentachlorodibenzo-p-dioxin at Discharge Point 002) and furans (1,2,3,4,7,8-Hexachlorodibenzofuran, 1,2,3,7,8,9-Hexachlorodibenzofuran, 2,3,4,6,7,8-Hexachlorodibenzofuran at Discharge Point 001 and 1,2,3,4,6,7,8-Heptachlorodibenzofuran, 1,2,3,4,7,8,9-Heptachlorodibenzofuran, 1,2,3,4,7,8-Hexachlorodibenzofuran, 1,2,3,6,7,8-Hexachlorodibenzofuran, 1,2,3,7,8,9-Hexachlorodibenzofuran, 1,2,3,7,8-Pentachlorodibenzofuran, 2,3,4,6,7,8-Hexachlorodibenzofuran, 2,3,4,7,8-Pentachlorodibenzofuran at Discharge Point 002) from the ARGET and GET EF facilities. The plan is required in this Order to ensure adequate measures are developed and implemented by the Discharger to reduce the discharge of dioxin and furan congeners to the receiving water.

4. Construction, Operation, and Maintenance Specifications

a. **Operations and Maintenance Plan.** Within 60-days of startup of a GET, the Discharger shall certify in writing to the Regional Water Board that it has developed an Operation and Maintenance Plan (O&M). O&M plans have already developed for GET EF, ARGET, GET HA and GET J, GET KA, GET LA, GET LB, Sailor Bar Park GET, and WRND GET under previous versions of the permit. Development and implementation of O&M plans are required to prevent or minimize the generation and discharge of wastes and pollutants to the waters of the United States and waters of the State for protection of the beneficial uses of the receiving waters.

5. Special Provisions for POTWs – Not Applicable

6. Other Special Provisions

a. The Discharger is required to report results for all constituents from the analysis for volatile organics using EPA Method 8260B Short List under Attachment E section III.A.5 of this this Order. The Discharger shall include in their cover letter a list of all positively identified constituents detected in the influent and effluent of the treatment system that do not have a specific effluent limitation. If any positively identified constituent has been found present in the effluent at a concentration above the Practical Quantitation Level during consecutive sampling periods, or more than three times in a twelve month period, the Discharger shall notify Regional Board staff and prepare an evaluation of the source of the pollutant and potential treatment options. If the constituent is found in the influent, then the permit may be reopened, and an effluent limitation established for that pollutant.

b. **Request for Discharge to Outfalls 008 and 009.** The Discharger plans to discharge treated groundwater from various GETs to Outfall 008 to American River at Natomas Stilling Basin and Outfall 009 to Alder Creek pending the results of a thermal impact study outlined in section VI.C.2.b. Before initiating discharge at Outfalls 008 and 009, the Discharger shall provide the results of the thermal impact study and submit a request for surface water discharge the American River via Outfall 008 and Alder Creek via Outfall 009, which demonstrates compliance with the requirements of sections IV.A. The surface water discharge is prohibited until compliance with this provision at which point the permit will be reopened and modified per Reopener Provision VI.C.1.a.ii.

c. **Request for Discharge from Outfall 010.** The Discharger plans to commence discharging from Outfall 010 to Morrison Creek from Discharge Point 017 for the WRND GET facility once the low-watt ultraviolet (UV) treatment system for NDMA removal is installed at the facility. Before initiating discharge to Outfall 010, the Discharger shall provide certification to the Central Valley Water Board that installation of the low-watt UV treatment system is complete by the design engineer. The certification of completion submitted by the Discharger shall certify that the discharges from Discharge Point 017 can meet the requirements of section IV.A.1 and IV.A.18.

7. Compliance Schedules – Not Applicable

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 authorize the Central Valley Water Board to establish

monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The burden, including costs, of these monitoring and reporting requirements bears a reasonable relationship to the need for the reports and the benefits to be obtained therefrom. The Discharger, as owner and operator of the Facility, is required to comply with these requirements, which are necessary to determine compliance with this Order. The following provides additional rationale for the monitoring and reporting requirements contained in the MRP for this facility.

Water Code section 13176, subdivision (a), states: "The analysis of any material required by [Water Code sections 13000-16104] shall be performed by a laboratory that has accreditation or certification pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code." The DDW accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP).

Section 13176 cannot be interpreted in a manner that would violate federal holding time requirements that apply to NPDES permits pursuant to the CWA. (Wat. Code sections 13370, subd. (c), 13372, 13377.). Section 13176 is inapplicable to NPDES permits to the extent it is inconsistent with CWA requirements. (Wat. Code section 13372, subd. (a).) Lab accreditation is not required for field tests such as tests for color, odor, turbidity, pH, temperature, dissolved oxygen, electrical conductivity, and disinfectant residual. The holding time requirements are 15 minutes for **pH, dissolved oxygen, and temperature** (40 C.F.R. section 136.3(e), Table II). The Discharger maintains an ELAP accredited laboratory on-site and conducts analysis within the required hold times.

A. Influent Monitoring

1. Influent monitoring is required to collect data on the characteristics of the groundwater and to assess compliance with effluent limitations (e.g., VOCs, perchlorate, and NDMA). The monitoring frequencies and sample types have been retained from Order R5-2020-0051-003 except as noted in Table F-20, below.

B. Effluent Monitoring

1. Pursuant to the requirements of 40 C.F.R. section 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations, assess the effectiveness of the treatment process, and to assess the impacts of the discharge on the receiving stream and groundwater. Effluent monitoring frequencies and sample types have been retained from Order R5-2020-0051-003 except as noted in Table F-20, below.

C. Receiving Water Monitoring

1. Surface Water

a. Receiving water monitoring is necessary to assess compliance with receiving water limitations and to assess the impacts of the discharge on the receiving stream. Receiving surface water monitoring frequencies and sample types have been retained from Order R5-2020-0051-003 except as noted in Table F-20, below.

Table F-20. Summary of Monitoring Changes

Parameter	Type of Monitoring	Prior Sample Frequency	Revised Sample Frequency	Reason for Change
2,3,7,8-TCDD and Other Dioxin and Furan Congeners	Influent, all discharge points	--	2/Year	Added to assess the source of 2,3,7,8-TCDD and Other Dioxin and Furan Congeners in the influent at all discharge points.
NDMA	Influent, GET HA, Sailor Bar Park GET, AC-18	--	1/Month	Added to assess whether the influent groundwater is contaminated with NDMA for GET HA, Sailor Bar Park GET, and AC-18.
Dissolved Oxygen	Effluent, all discharge points	1/Month	1/Quarter	Not a constituent of concern for groundwater cleanup sites.
Electrical Conductivity @ 25°Celsius	Effluent, all discharge points	1/Month	1/Quarter	Not a constituent of concern for groundwater cleanup sites.
Temperature	Effluent, all discharge points	1/Month	1/Quarter	Not a constituent of concern for groundwater cleanup sites.
Turbidity	Effluent, all discharge points	1/Month	1/Quarter	Not a constituent of concern for groundwater cleanup sites.
Perchlorate	Effluent, ARGET	1/Month	1/Quarter	Does not have reasonable potential (RP).
Volatile Organics	Effluent, ARGET	1/Month	1/Quarter	Does not have RP for known VOCs of concern.
2,3,7,8-TCDD and Other Dioxin and Furan Congeners	Effluent, ARGET	--	2/Year	Detected in effluent. Added to assess the source of 2,3,7,8-TCDD and Other Dioxin and Furan Congeners in the effluent.
Glyoxal	Effluent, GET EF	1/Month	Remove	Not a constituent of concern.

Parameter	Type of Monitoring	Prior Sample Frequency	Revised Sample Frequency	Reason for Change
Perchlorate	Effluent, GET EF	1/Month	1/Quarter	Does not have RP.
Volatile Organics	Effluent, GET EF	1/Month	1/Quarter	Does not have RP for known VOCs of concern.
2,3,7,8-TCDD and Other Dioxin and Furan Congeners	Effluent, GET EF	--	2/Year	Detected in effluent. Added to assess the source of 2,3,7,8-TCDD and Other Dioxin and Furan Congeners in the effluent.
Perchlorate	Effluent, GET HA	1/Month	1/Quarter	Does not have RP.
Volatile Organics	Effluent, GET HA	1/Month	1/Quarter	Does not have RP for known VOCs of concern.
Perchlorate	Effluent, GET J	1/Month	1/Quarter	Does not have RP.
Volatile Organics	Effluent, GET J	1/Month	1/Quarter	Does not have RP for known VOCs of concern.
Perchlorate	Effluent, GET KA	1/Month	1/Quarter	Does not have RP.
Volatile Organics	Effluent, GET KA	1/Month	1/Quarter	Does not have RP for known VOCs of concern except tetrachloroethylene.
Tetrachloroethylene	Effluent, GET KA	--	1/Month	Has RP.
Total Dissolved Solids	Effluent, GET LA	--	1/Quarter	Consistency with other discharge points.
Perchlorate	Effluent, GET LB	1/Month	1/Quarter	Does not have RP.
Volatile Organics	Effluent, GET LB	1/Month	1/Quarter	Does not have RP for known VOCs of concern.
Total Dissolved Solids	Effluent, GET LB	--	1/Quarter	Consistency with other discharge points.
1,4-Dioxane	Effluent, Sailor Bar Park GET	1/Month	1/Quarter	Does not have RP.
Perchlorate	Effluent, Sailor Bar Park GET	1/Month	1/Quarter	Does not have RP.
Volatile Organics	Effluent, Sailor Bar Park GET	1/Month	1/Quarter	Does not have RP for known VOCs of concern.

Parameter	Type of Monitoring	Prior Sample Frequency	Revised Sample Frequency	Reason for Change
Freon 113	Effluent, Sailor Bar Park GET	--	1/Month	Has RP.
Turbidity	Effluent, Sailor Bar Park GET	--	1/Quarter	Consistency with other discharge points.
Hardness as CaCO3	Effluent, Sailor Bar Park GET	--	1/Year	Consistency with other discharge points.
Total Dissolved Solids	Effluent, Sailor Bar Park GET	--	1/Quarter	Consistency with other discharge points.
Hardness as CaCO3	Effluent, AC-18	--	1/Year	Consistency with other discharge points.
Total Dissolved Solids	Effluent, AC-18	--	1/Quarter	Consistency with other discharge points.
Hardness as CaCO3	Effluent, GET AB	1/Quarter	1/Year	Consistency with other discharge points.
Methyl mercury	Effluent, GET AB	1/Year	Remove	Not a constituent of concern.
Perchlorate	Effluent, GET AB	1/Month	1/Quarter	Does not have RP.
Total Dissolved Solids	Effluent, GET AB	1/Month	1/Quarter	Consistency with other discharge points.
Volatile Organics	Effluent, GET AB	1/Month	1/Quarter	Does not have RP for known VOCs of concern.
Perchlorate	Effluent, WRND GET	1/Month	1/Quarter	Does not have RP.
Volatile Organics	Effluent, WRND GET	1/Month	1/Quarter	Does not have RP for known VOCs of concern.
PFAS	Effluent, WRND GET	--	1/Quarter	PFOA detected in the effluent above the drinking water MCL.
Acute Toxicity	Effluent, Cooling Tower 20019	--	1/Year	Has RP.
Hardness as CaCO3	Effluent, Cooling Tower 20019	--	1/Quarter	Copper is a constituent of concern at Cooling Tower 20019. Hardness shall be sampled concurrently with hardness dependent metals.
Hardness as CaCO3	Effluent, AC-25	--	1/Year	Consistency with other discharge points.

Parameter	Type of Monitoring	Prior Sample Frequency	Revised Sample Frequency	Reason for Change
Total Dissolved Solids	Effluent, AC-25	--	1/Quarter	Consistency with other discharge points.
Dissolved Oxygen	Receiving Water, all discharge points	1/Month	1/Quarter	Consistency with effluent sampling frequency.
Electrical Conductivity @ 25°Celsius	Receiving Water, all discharge points	1/Month	1/Quarter	Consistency with effluent sampling frequency.
Temperature	Receiving Water, all discharge points	1/Month	1/Quarter	Consistency with effluent sampling frequency.
Turbidity	Receiving Water, all discharge points	1/Month	1/Quarter	Consistency with effluent sampling frequency.
Hardness as CaCO3	Receiving Water, all discharge points	--	1/Year	Consistency with effluent sampling frequency.

D. Whole Effluent Toxicity Testing Requirements

Aquatic toxicity testing is necessary to evaluate the aggregate toxic effect of a mixture of toxicants in the effluent on the receiving water. Acute toxicity testing is conducted over a short time period and measures mortality, while chronic toxicity testing is conducted over a short or longer period and may measure mortality, reproduction, and growth. For this permit, aquatic toxicity testing is to be performed following methods identified in the Code of Federal Regulations, title 40, part 136, or other U.S. EPA-approved methods, or included in the following U.S. EPA method manuals: Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition (EPA-821-R-02-013), and Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition (EPA-821-R-02-012).

Annual acute whole effluent toxicity testing is required to demonstrate compliance with the acute toxicity effluent limitation. Quarterly chronic whole effluent toxicity testing is required to demonstrate compliance with the chronic toxicity effluent limitations/targets.

1. The discharge is subject to determination of “Pass” or “Fail” from an acute toxicity test and 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 and Table A-1 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1.

2. The null hypothesis (Ho) for the TST statistical approach is:

   Mean discharge IWC response ≤ RMD x Mean control response, where the chronic RMD = 0.75 <and the acute RMD = 0.80>.

   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.”

3. The relative “Percent Effect” at the discharge IWC is defined and reported as:

   Percent Effect = ((Mean control response – Mean discharge IWC response) / Mean control response) x 100.

   This is a t-test (formally Student’s t-Test), a statistical analysis comparing two sets of replicate observations, 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 differs from the control, the test result is “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.

4. **Species Sensitivity Screening.** The Discharger shall conduct an initial species sensitivity screening to evaluate the most sensitive species.

   Under the Toxicity Provisions, the Discharger shall perform subsequent species sensitivity screening to re-evaluate the most sensitive species if the effluent used in the initial species sensitivity screening is no longer representative of the effluent or if a species sensitivity screening has not been performed in the last fifteen years. Subsequent species sensitivity screening may also be required prior to every order issuance, renewal or reopening, if reopening to address aquatic toxicity.

   Pursuant to Section V.G of the MRP, the Discharger is required to perform species sensitivity screening and submit the results with **the Report of Waste Discharge**. Species sensitivity screening for chronic toxicity shall include, at a minimum, chronic WET testing four consecutive calendar quarters using the water flea (*Ceriodaphnia dubia*), fathead minnow (*Pimephales promelas*), and green algae (*Pseudokirchneriella subcapitata*). The tests shall be performed at an IWC of no less than 100 percent effluent and one control. For subsequent species sensitivity screening, if the first two species sensitivity screening events result in no change in the most sensitive species, the Discharger may cease the

subsequent species sensitivity screening and the most sensitive species will remain unchanged.

The most sensitive species to be used for chronic toxicity testing was determined in accordance with the process outlined in the MRP section V.G. Based on the Discharger's last 3 years of chronic toxicity data, there were results of "Fail" at the IWC using the TST statistical approach for water flea (*Ceriodaphnia dubia*) at Discharge Point 001 for the ARGET facility and Discharge Point 002 for the GET EF facility. Consequently, *Ceriodaphnia dubia* has been established as the most sensitive species for chronic WET testing.

5. **Toxicity Reduction Evaluation (TRE).** The Monitoring and Reporting Program of this Order requires chronic WET testing to demonstrate compliance with the numeric chronic toxicity effluent limitation. The Discharger is required to initiate a TRE when there is any combination of two or more chronic toxicity MDEL or MMEL violations within a single toxicity calendar month or within two successive toxicity calendar months has occurred. 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), the Central Valley Water Board may require a TRE. A TRE may also be required when there is no effluent available to complete a routine monitoring test, MMET test, or MMEL compliance test.

E. Other Monitoring Requirements

1. Biosolids Monitoring

Biosolids monitoring for compliance with 40 C.F.R. part 503 regulations is not included in this Order since it is a program administered by U.S. EPA's part 503 Biosolids Program (https://www.epa.gov/biosolids/compliance-and-annual-reporting-guidance-about-clean-water-act-laws)

2. Land Discharge Monitoring

Land discharge monitoring is required to ensure that the discharge to the land disposal area complies with the Land Discharge Specifications in WDR section IV.B. Monitoring frequencies and sample types for flow (continuous) has been retained from Order R5-2020-0051-003.

The effluent limitations for these discharges to meet the NPDES requirements are sufficiently stringent to protect groundwater quality.

3. Effluent and Receiving Water Characterization Monitoring

In accordance with section 1.3 of the SIP, periodic monitoring is required for priority pollutants for which criteria or objectives apply and for which no effluent

limitations have been established. This Order requires quarterly effluent and ambient background characterization monitoring event between 1 April 2027 and 31 March 2028 for priority pollutant constituents located in Appendix A to 40 C.F.R. part 423 during the term of the permit, in order to collect data to conduct an RPA for the next permit renewal. Characterization monitoring is only required at effluent Monitoring Location M-001 for the ARGET facility, effluent Monitoring Location M-002 for the GET EF facility, and upstream receiving water Monitoring Location R-001 for the American River because these GET facilities are the largest facilities and representative of the operations of all other GET facilities.

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

Under the authority of section 308 of the CWA (33 U.S.C. section 1318), U.S. EPA requires all dischargers 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 a DMR-QA sample as part of the DMR-QA Study; or (2) Per the waiver issued by U.S.EPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from their own laboratories or their 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 submit annually the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study 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.

VIII. PUBLIC PARTICIPATION

The Central Valley Water Board has considered the issuance of WDRs that will serve as an NPDES permit for Groundwater Extraction and Treatment Systems ARGET, GET EF, GET HA, GET J, GET KA, GET LA, GET LB, GET AB, WRND GET, Sailor Bar Park GET, Cooling Tower 20019, Golden State Water Wells and Low Threat Discharges. As a step in the WDR adoption process, the Central Valley Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

A. Notification of Interested Persons

The Central Valley 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. <Additionally,

consistent with Water Code section 189.7, the Central Valley Water Board conducted outreach to potentially affected disadvantaged and/or tribal communities concerning tentative WDRs.> Notification was provided through the following <**Describe Notification Process (e.g.,posting of the Notice of Public Hearing (NOPH) at the Facility and name other locations if applicable)**>. Additionally, the NOPH was posted on the Central Valley Water Board's Tentative Orders webpage.

The public had access to the agenda and any changes in dates and locations through the Central Valley Water Board's website (http://www.waterboards.ca.gov/centralvalley/board_info/meetings/)

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Central Valley Water Board at the address on the cover page of this Order.

To be fully responded to by staff and considered by the Central Valley Water Board, the written comments were due at the Central Valley Water Board office by 5:00 p.m. on <**Date**>.

C. Public Hearing

The Central Valley 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: **16/17 April 2026**
Time: **8:30 a.m.**
Location: Regional Water Quality Control Board, Central Valley Region
Fresno
1685 E. Street
Fresno, CA 93706

Physical Meeting Location with Remote Meeting Option

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

D. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water board to review the action in accordance with Water Code section 13320 and CCR, 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

Instructions on how to file a petition for review (http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml) are available on the Internet.

E. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Central Valley Water Board by calling (916) 464-3291.

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Sarah Curry at 916-464-4713, or sarah.curry@waterboards.ca.gov.

ATTACHMENT G – SUMMARY OF REASONABLE POTENTIAL ANALYSIS

DP	Constituent	Units	MEC	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	RP
001	1,1-Dichloroethane	µg/L	ND	ND	5	--	--	--	--	--	--	No
001	1,1-Dichloroethylene	µg/L	ND	ND	0.057	--	--	0.057	3.2	--	6	No
001	1,4-Dioxane	µg/L	4	--	--	--	--	--	--	--	--	ID
001	Chloroform	µg/L	ND	ND	80	--	--	60	2000	--	80	No
001	cis-1,2-Dichloroethylene	µg/L	ND	ND	11600	11600	--	--	--	--	--	No
001	NDMA	µg/L	ND	0.00066	0.00069	--	--	0.00069	8.1	--	--	No
001	Perchlorate	µg/L	2	ND	6	--	--	--	--	--	6	No
001	Tetrachloroethylene	µg/L	ND	ND	0.8	--	--	0.8	8.5	--	5	No
001	Trichloroethylene	µg/L	ND	ND	2.7	--	--	2.7	81	--	5	No
002	1,1-Dichloroethane	µg/L	ND	ND	5	--	--	--	--	--	--	No
002	1,1-Dichloroethylene	µg/L	ND	ND	0.057	--	--	0.057	3.2	--	6	No
002	1,2-Dichloroethane	µg/L	ND	ND	0.38	--	--	0.38	95	--	0.5	No
002	1,4-Dioxane	µg/L	0.6	--	--	--	--	--	--	--	--	ID
002	Acetaldehyde	µg/L	26	1.8	--	--	--	--	--	--	--	No
002	Acrylamide	µg/L	0.1	--	--	--	--	--	--	--	--	ID
002	Chloroform	µg/L	ND	ND	80	--	--	60	2000	--	80	No
002	cis-1,2-Dichloroethylene	µg/L	ND	ND	11600	11600	--	--	--	--	--	No
002	Formaldehyde	µg/L	15	--	--	--	--	--	--	--	--	ID
002	NDMA	µg/L	0.0049	0.00066	0.00069	--	--	0.00069	8.1	--	--	Yes
002	Perchlorate	µg/L	0.9	ND	6	--	--	--	--	--	6	No
002	Tetrachloroethylene	µg/L	ND	ND	0.8	--	--	0.8	8.5	--	5	No
002	Trichloroethylene	µg/L	ND	ND	2.7	--	--	2.7	81	--	5	No
004	Chloroform	µg/L	0.2	42	80	--	--	60	2000	--	80	No
004	Perchlorate	µg/L	5	ND	6	--	--	--	--	--	6	No
004	Trichloroethylene	µg/L	0.3	ND	2.7	--	--	2.7	81	--	5	No

DP	Constituent	Units	MEC	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	RP
005	1,1-Dichloroethylene	µg/L	ND	ND	0.057	--	--	0.057	3.2	--	6	No
005	Chloroform	µg/L	2	ND	80	--	--	60	2000	--	80	No
005	cis-1,2-Dichloroethylene	µg/L	ND	ND	11600	11600	--	--	--	--	--	No
005	NDMA	µg/L	ND	0.00066	0.00069	--	--	0.00069	8.1	--	--	No
005	Perchlorate	µg/L	ND	ND	6	--	--	--	--	--	6	No
005	Trichloroethylene	µg/L	ND	ND	2.7	--	--	2.7	81	--	5	No
007	Chloroform	µg/L	0.9	ND	80	--	--	60	2000	--	80	No
007	NDMA	µg/L	0.0032	0.0065	0.00069	--	--	0.00069	8.1	--	--	Yes
007	Perchlorate	µg/L	1	ND	6	--	--	--	--	--	6	No
007	Tetrachloroethylene	µg/L	0.8	ND	0.8	--	--	0.8	8.5	--	5	No
007	Trichloroethylene	µg/L	0.7	ND	2.7	--	--	2.7	81	--	5	No
008	1,1-Dichloroethylene	µg/L	--	ND	0.057	--	--	0.057	3.2	--	6	ID
008	NDMA	µg/L	--	0.00059	0.00069	--	--	0.00069	8.1	--	--	ID
008	Trichloroethylene	µg/L	--	ND	2.7	--	--	2.7	81	--	5	ID
009	NDMA	µg/L	0.0027	0.00069	0.00069	--	--	0.00069	8.1	--	--	Yes
009	Perchlorate	µg/L	ND	ND	6	--	--	--	--	--	6	No
009	Trichloroethylene	µg/L	ND	ND	2.7	--	--	2.7	81	--	5	No
010	1,1-Dichloroethylene	µg/L	0.5	--	0.057	--	--	0.057	3.2	--	6	No
010	cis-1,2-Dichloroethylene	µg/L	0.5	--	11600	11600	--	--	--	--	--	No
010	Perchlorate	µg/L	ND	--	6	--	--	--	--	--	6	No
010	Trichloroethylene	µg/L	ND	--	2.7	--	--	2.7	81	--	5	No
012	1,1-Dichloroethane	µg/L	ND	ND	5	--	--	--	--	--	--	No
012	1,1-Dichloroethylene	µg/L	ND	ND	0.057	--	--	0.057	3.2	--	6	No
012	1,2-Dichloroethane	µg/L	ND	ND	0.38	--	--	0.38	95	--	0.5	No
012	1,4-Dioxane	µg/L	1.6	--	--	--	--	--	--	--	--	ID
012	Chloroform	µg/L	3.5	ND	80	--	--	60	2000	--	80	No
012	cis-1,2-Dichloroethylene	µg/L	ND	ND	11600	11600	--	--	--	--	--	No

DP	Constituent	Units	MEC	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	RP
012	NDMA	µg/L	0.0027	--	0.00069	--	--	0.00069	8.1	--	--	Yes
012	Perchlorate	µg/L	5.1	--	6	--	--	--	--	--	--	No
012	Tetrachloroethylene	µg/L	0.84	ND	0.8	--	--	0.8	8.5	--	5	Yes
012	Trichloroethylene	µg/L	1.2	ND	2.7	--	--	2.7	81	--	5	No
014	Perchlorate	µg/L	5.1	ND	6	--	--	--	--	--	6	No
014	Trichloroethylene	µg/L	1.2	ND	2.7	--	--	2.7	81	--	5	No
016	1,1-Dichloroethane	µg/L	ND	ND	5	--	--	--	--	--	--	No
016	1,1-Dichloroethylene	µg/L	ND	ND	0.057	--	--	0.057	3.2	--	6	No
016	1,2-Dichloroethane	µg/L	ND	ND	0.38	--	--	0.38	95	--	0.5	No
016	Chloroform	µg/L	ND	ND	80	--	--	60	2000	--	80	No
016	cis-1,2-Dichloroethylene	µg/L	ND	ND	11600	11600	--	--	--	--	--	No
016	Freon 113	µg/L	ND	ND	1200	--	--	--	--	--	1200	No
016	NDMA	µg/L	0.0076	0.00066	0.00069	--	--	0.00069	8.1	--	--	Yes
016	Perchlorate	µg/L	3	ND	6	--	--	--	--	--	6	No
016	Tetrachloroethylene	µg/L	ND	ND	0.8	--	--	0.8	8.5	--	5	No
016	Trichloroethylene	µg/L	ND	ND	2.7	--	--	2.7	81	--	5	No
017	1,1-Dichloroethane	µg/L	ND	ND	0.38	--	--	0.38	95	--	0.5	No
017	Chloroform	µg/L	ND	ND	80	--	--	60	2000	--	80	No
017	cis-1,2-Dichloroethylene	µg/L	ND	ND	11600	11600	--	--	--	--	--	No
017	NDMA	µg/L	ND	0.00066	0.00069	--	--	0.00069	8.1	--	--	No
017	Perchlorate	µg/L	2	ND	6	--	--	--	--	--	6	No
017	Tetrachloroethylene	µg/L	ND	ND	0.8	--	--	0.8	8.5	--	5	No
017	Trichloroethylene	µg/L	ND	ND	2.7	--	--	2.7	81	--	5	No
019	Copper, Total	µg/L	870	1.2	3.1	4.2	3.1	1300	--	--	1300	ID
020	Chloroform	µg/L	3.5	ND	80	--	--	60	2000	--	80	No
020	Perchlorate	µg/L	5.1	ND	6	--	--	--	--	--	6	No
020	Tetrachloroethylene	µg/L	0.84	ND	0.8	--	--	0.8	8.5	--	5	Yes
020	Trichloroethylene	µg/L	1.2	ND	2.7	--	--	2.7	81	--	5	No

Attachment G Table Notes:

1. **NDMA.** TBELs have been established for NDMA (see Fact Sheet section IV.B.2).
2. **Perchlorate.** TBELs have been established for perchlorate (see Fact Sheet section IV.B.2).
3. **Volatile Organic Compounds.** TBELs have been established for volatile organic compounds (see Fact Sheet section IV.B.2).
4. **Discharge Point 008.** There is insufficient data to determine RP at Discharge Point 008. GET LA is inactive and no effluent data was collected at Discharge Point 008.
5. **Discharge Point 014.** AC-18 only discharged low threat discharges as described under Discharge Point 012; therefore, data from Discharge Point 012 was used to determine RP at Discharge Point 014 (see Fact Sheet section IV.C.3).
6. **Discharge Point 020.** AC-25 only discharged low threat discharges as described under Discharge Point 012; therefore, data from Discharge Point 012 was used to determine RP at Discharge Point 020 (see Fact Sheet section IV.C.3).

Abbreviations used in this table:

DP =	Discharge Point
MEC =	Maximum Effluent Concentration
B =	Maximum Receiving Water Concentration or lowest detection level, if non-detect
C =	Criterion used for Reasonable Potential Analysis
CMC =	Criterion Maximum Concentration (CTR or NTR)
CCC =	Criterion Continuous Concentration (CTR or NTR)
Water & Org =	Human Health Criterion for Consumption of Water & Organisms (CTR or NTR)
Org Only =	Human Health Criterion for Consumption of Organisms Only (CTR or NTR)
Basin Plan =	Numeric Site-Specific Basin Plan Water Quality Objective
MCL =	Drinking Water Standards Maximum Contaminant Level
RP =	Reasonable Potential
ID =	Insufficient data
NA =	Not Available
ND =	Non-detect

ATTACHMENT H – CALCULATION OF WQBELS

Table H-1. Human Health WQBELs Calculations

Parameter	Units	Criteria	Mean Background Concentration	Effluent CV	Dilution Factor	AWEL Multiplier	MDEL/AMEL Multiplier	AMEL	MDEL	AWEL
1,1-Dichloroethane	µg/L	5	0.078	0.36	--	--	1.6	5	8	--
1,1-Dichloroethylene	µg/L	0.057	0.086	0.24	--	--	1.4	0.057	0.079	--
1,2-Dichloroethane	µg/L	0.38	0.072	0.06	--	--	1.1	0.38	0.5	--
Chloroform	µg/L	80	1.4	0.65	--	--	2.1	3	5	--
cis-1,2-Dichloroethylene	µg/L	6	0.085	0.06	--	--	1.1	6	7	--
NDMA	µg/L	0.00069	0.016	5.3	--	--	3.5	0.00069	0.0024	--
Perchlorate	µg/L	6	0.76	0.98	--	--	2.5	6	15	--
Tetrachloroethylene	µg/L	0.8	0.066	0.66	--	--	2.1	0.8	1.7	--
Trichloroethylene	µg/L	2.7	0.1	0.97	--	--	2.5	2.7	6.7	--

Table H-1 Notes:

1. CV was established according to section 1.4 of the SIP.
2. **1,2-Dichloroethane.** WQBELs for 1,2-Dichloroethane have been carried forward from Order R5-2020-0051-003 (see Fact Sheet section IV.C.3.b.iii).
3. **Chloroform.** WQBELs for chloroform have been carried forward from Order R5-2020-0051-003 (see Fact Sheet section IV.C.3.b.v).

Abbreviations used in this table:

CV = Coefficient of Variation
AMEL = Average Monthly Effluent Limitation
MDEL = Maximum Daily Effluent Limitation
AWEL = Average Weekly Effluent Limitation