CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2018-0002

AMENDING ORDER R5-2016-0076
NPDES NO. CAG995002

WASTE DISCHARGE REQUIREMENTS
FOR LIMITED THREAT DISCHARGES TO SURFACE WATER

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

1. On 14 October 2016, the Central Valley Water Board adopted Waste Discharge Requirements Order R5-2016-0076 (NPDES No. CAG995002) for Limited Threat Discharges to Surface Water (Limited Threat General Order). This Order amends the Limited Threat General Order as summarized in findings 2 – 8, below. Other editorial and clarifying changes have also been made to the Limited Threat General Order.

2. **Salinity Evaluation and Minimization Plan.** The Limited Threat General Order includes additional requirements for discharges with elevated salinity, i.e., electrical conductivity levels greater than 900 µmhos/cm, flows greater than or equal to 0.25 MGD, and continuous discharge duration 180 days or longer. In these elevated salinity situations the discharger is required to submit a salinity evaluation and minimization plan. The Limited Threat General Order is amended to allow the Executive Officer under limited circumstances to waive this requirement in the notice of applicability (NOA). For example, for construction dewatering projects where the groundwater is naturally high in salinity. In these specific situations a salinity evaluation and minimization plan is not effective.

3. **New Temperature Requirements.**

    a. **Thermal Plan.** The State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on 7 January 1971, and amended this plan on 18 September 1975. The Thermal Plan contains temperature objectives for surface waters that are applicable within the Sacramento-San Joaquin Delta. This Order amends the Limited Threat General Order to include the requirements of the Thermal Plan to be applied for elevated temperature waste discharges within the Sacramento-San Joaquin Delta. The effluent and receiving water temperature requirements per the Thermal Plan will be specified in the NOA.

    b. **Deer Creek Temperature Requirements.** The Water Quality Control Plan for the Sacramento-San Joaquin River Basins contains site-specific temperature limits for Deer Creek in El Dorado and Sacramento Counties. This Order amends the Limited Threat General Order to incorporate the site-specific receiving water limitations that will be specified in the NOA for discharges to Deer Creek.

4. **Best Management Practices (BMP's) Plan.** Each Discharger with a treatment system (Tier 2 and Tier 3) authorized to discharge under the Limited Threat General Order is required to develop and implement BMP's that include site-specific plans and procedures implemented and/or to be implemented to prevent the generation and potential release of pollutants from the discharge facility to waters of the State. In certain circumstances BMP requirements should be required for Tier 1 Dischargers. Therefore, this Order amends the Limited Threat General Order to allow the Executive Officer, when appropriate, to require the BMP requirements for Tier 1 Dischargers in the NOA.

5. **Secondary Maximum Contaminant Levels (MCLs) (Iron and Manganese).** The State Water Board Division of Drinking Water (DDW) has developed Secondary MCL - Consumer Acceptance Limits for iron and manganese. The Secondary MCLs are drinking water standards contained in Title 22 of the California Code of Regulations and are derived from human welfare considerations (e.g., taste, odor, laundry staining), not for toxicity. DDW has advised that compliance with the dissolved fraction of MCLs in source waters is fully protective of the MUN beneficial use. Furthermore, iron and manganese are not toxic contaminants, therefore, short-term exceedances do not result in any health consequence and DDW recommends compliance with the Secondary MCLs based on annual average concentrations. This Order amends the Limited Threat General Order to specify that the screening levels for iron and manganese based on the Secondary MCLs are established as dissolved metals and, when sufficient data exists, the reasonable potential analyses can be conducted based on the annual average effluent concentration.

6. **Acute Whole Effluent Toxicity.** The Limited Threat General Order requires that all Tier 2 and Tier 3 discharges must submit acute whole effluent toxicity data with the Notice of Intent (NOI) application. While acute toxicity is a concern for Tier 3 discharges (i.e., hard rock mines), Tier 2 dischargers are limited threat discharges that are not expected to exhibit acute toxicity. Therefore, this Order amends the Limited Threat General Order to remove the requirement to submit acute whole effluent toxicity data with the NOI. When applicable the Executive Officer will establish acute whole effluent toxicity monitoring requires in the NOA.

7. **Attachment F Removal.** Attachment F to the Limited Threat General Order was originally planned to be used as an attachment to the NOA to establish the monitoring requirements. However, to reduce the size of the NOAs and for clarification purposes the effluent and receiving water monitoring requirements are being established as tables within the NOAs. Therefore, there is no longer a need to include Attachment F and this Order removes the attachment from the Limited Threat General Order.

8. **General Order for Treated Groundwater from Cleanup of Petroleum Fuel Pollution, Order R5-2013-0075.** The presence of petroleum constituents in groundwater at various sites throughout the Central Valley Region poses a threat to existing and potential beneficial uses of the groundwater. As responsible parties investigate and remediate these sites, the number of groundwater cleanups of petroleum constituents is increasing. Remediation at many of these sites includes groundwater treatment, with discharge of the treated groundwater. General Order R5-2013-0075 was developed to regulate the discharge of treated groundwater from cleanups of petroleum constituents to waters of the United States. This Order has been amended to regulate discharges of treated groundwater from cleanups of petroleum fuel pollution. It replaces the previous Petroleum General Order.

9. On 1 February 2018, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board conducted a public hearing at which evidence was received to consider this Order under the California Water Code.

10. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) ("CEQA") pursuant to Water Code section 13389, since the adoption or modification of a NPDES permit for an existing source is statutorily exempt and this Order only serves to implement a NPDES permit. (*Pacific Water Conditioning Ass'n, Inc. v. Discharger Council of Discharger of Riverside* (1977) 73 Cal.App.3d 546, 555-556.). Issuance of this Order is also exempt from the provisions of CEQA in accordance with California Code of Regulations, title 14, section 15321, subdivision (a)(2).

IT IS HEREBY ORDERED THAT:

Effective immediately, Waste Discharge Requirements Order R5-2016-0076 (NPDES No. CAG995002) is amended as shown in items 1 – 57, below.

1. The Order number is changed from R5-2016-0076 to R5-2016-0076-01.

2. **Cover Page** - Modify Table 1. Discharger Information, as shown in underline strikeout format below:

Table 1. Discharger Information

Dischargers	Individuals, public agencies, private businesses, and other legal entities discharging the following: Tier 1: Clean or relatively pollutant-free wastewaters that pose little or no threat to water quality. Tier 1A: Discharges of less than 0.25 million gallons per day (MGD) ~~and/~~or less than 4 months in duration (or as determined by the Executive Officer); and Tier 1B: Discharges greater than or equal to 0.25 MGD and~~/or~~ greater than or equal to 4 months in duration (or as determined by the Executive Officer). Tier 2: Discharges that may contain toxic organic constituents, volatile organic compounds, <u>petroleum fuel pollution constituents,</u> pesticides, inorganic constituents, chlorine, and/or other chemical constituents that require treatment prior to discharge. Tier 3: Discharges of wastewater from hard rock mines.

3. **Cover Page -** Modify the last paragraph as shown in underline/strikeout format below:

I, PAMELA C. CREEDON, 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 **14 October 2016**, and amended by Order R5-2018-0002 on **1 February 2018**.

4. **Table of Contents -** Remove all contents in Attachment F and leave as a reserved attachment. Modify the Table of Contents as shown in underline/strikeout format below:

ATTACHMENTS

5. **Limitations and Discharge Requirements, Section I. DISCHARGE INFORMATION -** Modify **Section 1** as shown in underline/strikeout format below:

Tier 1: Clean or relatively pollutant-free wastewaters that pose little or no threat to water quality.

Tier 1A. Discharges of less than 0.25 million gallons per day (MGD) ~~and/~~or less than 4 months in duration (or as determined by the Executive Officer); ~~and~~or

Tier 1B. Discharges greater than or equal to 0.25 MGD and~~/or~~ greater than or equal to 4 months in duration (or as determined by the Executive Officer).

Tier 2: Wastewater that may contain toxic organic constituents, volatile organic compounds (VOCs), petroleum fuel pollution constituents, pesticides, inorganic constituents, chlorine, and other chemical constituents for which treatment technologies are well-established to eliminate constituents that pose a threat to water quality and that require treatment prior to discharge.

Tier 3: Wastewater from hard rock mines (excluding aggregate mines, which may be included in Tiers 1 or 2).

6. **Limitations and Discharge Requirements, Section I. DISCHARGE INFORMATION and Table 3. Eligible Discharges with Applicable Tiers -** Modify last paragraph and Table 3 as shown in underline/strikeout format below:

Table 3, below, lists several examples of the types of discharges that are eligible for coverage under this General Order and the applicable tiers based on~~,~~ the volume discharged, the duration of discharge, and whether treatment is required to meet screening levels~~the type of permit that is applicable under this General Order~~.

Table 3. Eligible Discharges with Applicable Tiers

Type of Discharge	**Wastewater Does Not Exceed Screening Levels, Y/N?**	**Maximum Daily Discharge < 0.25 MGD ~~and/~~or < 4 months**	**Maximum Daily Discharge ≥ 0.25 MGD and~~/or~~ ≥ 4 months**
Well Development Water	Y[1]	Tier 1A	Tier 1B
Construction Dewatering	Y[1]	Tier 1A	Tier 1B
Pump/Well Testing	Y[1]	Tier 1A	Tier 1B
Pipeline/Tank Pressure Testing	Y[1]	Tier 1A	Tier 1B
Pipeline/Tank Flushing or Dewatering	Y[1]	Tier 1A	Tier 1B
Condensate	Y[1]	Tier 1A	Tier 1B
Water Supply System	Y[1]	Tier 1A	Tier 1B
Aggregate Mine	Y[1]	Tier 1A	Tier 1B
Filter Backwash Water	Y[1]	Tier 1A	Tier 1B
Other Wastewater ~~That Meets Effluent Limitations~~ Without a Treatment System	Y[1]	Tier 1A	Tier 1B
~~Other Wastewater That Does Not Meet Effluent Limitations Without Treatment~~	~~N~~	~~Tier 2~~	~~Tier 2~~
Superchlorination Project Wastewater That Does Not Meet Effluent Limitations Without Treatment	N	Tier 2	Tier 2
Equipment Decontamination Wastewater That Does Not Meet Effluent Limitations Without Treatment	N	Tier 2	Tier 2
Cleanup Site Wastewater That Does Not Meet Effluent Limitations Without Treatment	N	Tier 2	Tier 2
Groundwater Cleanup of Petroleum Fuel Pollution	Y or N	Tier 2	Tier 2
Hard Rock Mine Wastewater (Excluding Aggregate Mines) With or Without Treatment	N	Tier 3	Tier 3

[1] If the wastewater exceeds the screening levels this type of discharge will be assigned to Tier 2.

7. **Limitations and Discharge Requirements, Section II. NOTIFICATION REQUIREMENTS -** Modify Section II.A.1 as shown in underline/strikeout format below:

1. Requirements for all Discharges. The following documents and information must be submitted as part of the NOI:

a. State Water Board Form 200;

b. A full description of the proposed project on official letterhead that includes the items listed in section 2 of Attachment J;

c. A project map showing the location of the project, discharge points, ~~and~~ receiving water(s), and effluent and receiving water monitoring locations;

d. The fee for enrollment under this Order shall be based on Category 3 in section 2200(b)(9) of title 23, California Code of Regulations . Checks must be made payable to the State Water Resources Control Board. The current fee schedule is available at the following website:

http://www.waterboards.ca.gov/water_issues/programs/npdes/

e. Discharge type (see section 4 of the Notice of Intent, Attachment J);

f. An evaluation of disposal/reclamation options (see section 5 of the Notice of Intent, Attachment J);

g. Analytical results of sampling of the proposed wastewater for the applicable pollutants specified in Table I-1 of Attachment I for the type of wastewater to be discharged; and

h. Certification by authorized personnel (see section 11~~2~~ of the Notice of Intent, Attachment J).

8. **Limitations and Discharge Requirements, Section II NOTIFICATION REQUIREMENTS -** Modify Section II.A.2.c. as shown in underline/strikeout format below:

c. Salinity in Discharges. Additional requirements for discharges with salinity (EC), of the untreated wastewater, greater than ~~the~~ 900 µmhos/cm ~~screening level~~, flows greater than or equal to 0.25 MGD, and continuous discharge duration 180 days or longer:

i. Dischargers shall submit a Salinity Evaluation and Minimization Plan, within 60 days after initiating a new discharge under this Order, to ensure adequate measures are developed and implemented by the Discharger to reduce the discharge of salinity and by which the discharger will minimize any increase in effluent salinity as the result of treatment of the wastewater, if applicable. Under limited circumstances the Executive Officer may waive this requirement in the NOA. For example, for construction dewatering projects where the groundwater is naturally high in salinity.

9. **Limitations and Discharge Requirements, Section II. NOTIFICATION REQUIREMENTS – Modify Section II.C.1.e.** and **Section II.C.1.f.** as shown in underline/strikeout format below:

C. Eligibility Criteria

1. All Limited Threat Discharges

To be authorized by this General Order, all Dischargers of limited threat discharges (Tier 1A, Tier 1B, Tier 2, and Tier 3) shall comply with the terms and provisions of this General Order and must demonstrate that the discharge or proposed discharge meets the following criteria:

a. The wastewater does not contain sewage of human origin;

b. The wastewater does not contain acid mine drainage;

c. The discharge point is to a surface water or surface water drainage course;

d. All discharges to CWA section 303(d) listed waters shall not exceed the applicable criteria or comply with established Total Maximum Daily Loads (TMDLs), at the point of discharge;

e. A representative sample of the wastewater ~~prior to any treatment~~ has been analyzed for the constituents listed in Table I-1 of Attachment I;

f. The analytical test results from Step e, above, have been compared to the water quality screening levels for the constituents listed in Attachment I;

i. If the analytical test results of the wastewater ~~prior to any treatment~~ show that the results are at or below the screening levels in Attachment I, then the Discharger will be enrolled under Tier 1A or Tier 1B of this Order and treatment of the wastewater will not be required for the discharge.

ii. Excluding hard rock mines, if the analytical test results of the wastewater ~~prior to any treatment~~ show that constituent concentrations exceed the water quality screening levels listed in Attachment I, then the Discharger will be enrolled under Tier 2 of this Order and treatment will be required for the discharge.

iii. For hard rock mines, the Discharger will be enrolled under Tier 3 of this Order.

10. **Limitations and Discharge Requirements, Section II. NOTIFICATION REQUIREMENTS** – Modify Section II.C.2. as shown in underline/strikeout format below:

2. Tier 1 Discharges.

To be authorized as a Tier 1 discharge under this General Order, the Discharger must demonstrate that the discharge or proposed discharge meets the criteria in section II.C.1 above and the following criteria:

a. The untreated discharge does not exceed the screening levels listed in Attachment I; and

b. The maximum daily discharge rate and discharge duration are as follows:

Tier 1A. To be authorized as a Tier 1A discharge under this General Order, the proposed discharge rate is < 0.25 MGD ~~and/~~or the discharge is less than 4 months ~~or less~~ in duration (or as determined by the Executive Officer in the NOA).

Tier 1B. To be authorized as a Tier 1B discharge under this General Order, the proposed discharge rate is ≥ 0.25 MGD and~~/or~~ the discharge is greater than 4 months in duration (or as determined by the Executive Officer in the NOA).

11. **Limitations and Discharge Requirements, Section V. EFFLUENT LIMITATIONS – Insert new Section V.A.5.d.** as shown in underline format below:

d. Temperature. For discharges within the legal boundaries of the Sacramento-San Joaquin Delta, if specified in the Notice of Applicability, the maximum temperature of the discharge shall not exceed the natural receiving water temperature by more than 20°F.

12. **Limitations and Discharge Requirements, Section V. EFFLUENT LIMITATIONS –** Modify Section V.B.2 and Table 11 (shown in part), as shown in underline/strikeout format below:

B. Technology-Based Effluent Limitations

2. Volatile Organic Compounds (VOC's) Applicable to Remediation Sites. ~~In addition to the effluent limitations contained in section V.A.1.f, t~~The discharge of treated wastewater from site investigations and/or cleanup of sites contaminated with volatile organic compounds shall not exceed the effluent limitations in Table 11, below, as identified in the Notice of Applicability from the Executive Officer. Table 11 contains a partial list of VOC's and is not intended to limit the Executive Officer from identifying additional VOC's for Water Quality Based Effluent Limitations; all VOC's not listed in Table 11 will have Maximum Daily Effluent Limitations of 0.5 µg/L.

Table 11. VOC Effluent Limitations for Remediation Projects

Parameter	Units	Maximum Daily Effluent Limitations
~~Dichloromethane~~ Methylene Chloride	µg/L	0.5
MTBE (Methyl tertiary butyl ether)	µg/L	0.5

13. **Limitations and Discharge Requirements, Section V. EFFLUENT LIMITATIONS –** Modify Section V.B.3. and Table 12 title as shown in underline/strikeout format below:

3. Discharges Active from Hard Rock Mines. ~~In addition to the effluent limitations contained in section V.A.1.b, f, and g, t~~The discharge from active mining and milling activities and in mine drainage[1] from active copper, lead, zinc, gold, silver, and molybdenum mines shall not exceed the effluent limitations in Table 12, as identified in the Notice of Applicability from the Executive Officer. Water Quality Based Effluent Limitations may be more stringent than the listed Technology Based Effluent Limitations in Table 12 and will be discussed further in the NOA.

Table 12. Technology-Based Effluent Limitations Applicable to Discharges from Active Hard Rock Mines

14. **Limitations and Discharge Requirements, Section V. EFFLUENT LIMITATIONS – Insert new Section** V.B.4. and Table 13 as shown in underline format below:

4. Petroleum Fuel Pollution Remediation Projects. Discharges of treated groundwater from cleanup of petroleum fuel pollution shall not exceed the effluent limitations in Table 13, below, as identified in the Notice of Applicability from the Executive Officer. More stringent Water Quality-Based Effluent Limitations for the constituents listed in Table 13 may be included in the Notice of Applicability, if applicable.

Table 13. Effluent Limitations – Petroleum Fuel Pollution Remediation Projects

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Priority Pollutants			
Benzene	µg/L	--	0.5
Ethylbenzene	µg/L	--	0.5
1,2-Dichloroethane	µg/L	0.38	0.5
Naphthalene	µg/L	--	5.0
Toluene	µg/L	--	0.5
Non-conventional Pollutants			
Di-isopropyl Ether	µg/L	--	5
Ethylene Dibromide	µg/L	0.05	0.10
Ethyl Tertiary Butyl Ether	µg/L	--	5
Methanol	µg/L	--	20
Methyl Tertiary Butyl Ether	µg/L	--	1.0
Carcinogenic PAHs[1]	µg/L	0.0044	0.0088
Tertiary Amyl Methyl Ether	µg/L	--	1.0
Tertiary Butyl Alcohol	µg/L	--	10
Total Petroleum Hydrocarbons (Gasoline Range)	µg/L	--	50
Total Petroleum Hydrocarbons (Diesel Range)	µg/L	--	50
Xylene[2]	µg/L	--	0.5

[1] Applies to the sum of benzo[a]pyrene, benz[a]anthracene, benzo[b]fluroanthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenz[a,j]acridine, dibenz[a,h]acridine, dibenz[a,h]anthracene, 7H-dibenzo[c,g]carbazole, dibenzo[a,e]pyrene, dibenzo[a,h]pyrene, dibenzo[a,i]pyrene, dibenzo[a,l]pyrene, indeno[1,2,3-cd]pyrene, 5-methylchrysene, 1-nitropyrene, 4-nitropyrene, 1,6-dinitropyrene, 1,8-dinitropyrene, 6-nitrocrysene, 2-nitrofluorene, and chrysene.

[2] Applies to the sum of o-xylene, m-xylene, and p-xylene.

15. **Limitations and Discharge Requirements, Section VIII. RECEIVING WATER LIMITATIONS - Modify Section VIII.A.16.** and insert **Table 14** as shown in underline/strikeout format below:

16. Temperature. ~~The natural temperature to be increased by more than 5°F.~~ Where receiving water temperature limitations apply, as specified in the Notice of Applicability:

a. For water bodies outside the legal boundaries of the Sacramento-San Joaquin Delta, the natural temperature to be increased by more than 5°F.

b. For water bodies within the legal boundaries of the Sacramento-San Joaquin Delta the discharge shall not cause the following in the water body:

i. The creation of a zone, defined by water temperatures of more than 1°F above natural receiving water temperature, which exceeds 25 percent of the cross-sectional area of the river channel at any point.

ii. A surface water temperature rise greater than 4°F above the natural temperature of the receiving water at any time or place.

c. For discharges to Deer Creek, source to Cosumnes River, temperature changes due to controllable factors shall not cause creek temperatures to exceed the objectives specified in Table 14.

Table 14. Temperature Receiving Water Limitations for Deer Creek

Period	Daily Maximum (°F)[1]	Monthly Average (°F)[2]
January and February	63	58
March	65	60
April	71	64
May	77	68
June	81	74
July through September	81	77
October	77	72
November	73	65
December	65	58

[1] Maximum not to be exceeded.

[2] Defined as a calendar month average.

16. **Limitations and Discharge Requirements, Section IX. PROVISIONS -** Modify Section IX.C.3.a as shown in underline/strikeout format below:

a. Best Management Practices (BMP's). Each Discharger with a treatment system (Tier 2 and Tier 3) authorized to discharge under this General Order shall develop and implement BMP's that include site-specific plans and procedures implemented and/or to be implemented to prevent the generation and potential release of pollutants from the discharge facility to waters of the State. These BMP requirements are not automatically required for Tier 1 Dischargers. However, when appropriate the Executive Officer may require the BMP requirements for Tier 1 Dischargers in the NOA. The BMP's shall be consistent with the general guidance contained in the U.S. EPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004). In particular, a risk

assessment of each area identified by the Discharger shall be performed that will ensure proper operation and maintenance, prevent the additional chemicals or other substances from being introduced into the discharge, and prevent the addition of pollutants from the other non-permitted process waters, spills, or other sources of pollutants at the discharge facility. The necessary BMP's shall be identified, developed, and implemented prior to the initiation of the discharge to ensure compliance with this Order and with the effluent limitations specified in the NOA. Each Discharger shall update and amend the BMP Plan as necessary to maintain compliance with this General Order. Each Discharger shall make the BMP Plan available to Central Valley Water Board staff upon request.

17. **Limitations and Discharge Requirements, Section IX. PROVISIONS -** Modify Section IX.C.3.c as shown in underline/strikeout format below:

    c. Salinity. Each Discharger authorized under this General Order shall use practices to minimize discharges of salinity. For ~~All~~ Dischargers with elevated salinity, i.e., effluent electrical conductivity greater than 900 µmhos/cm, flow greater than or equal to 0.25 MGD, and planned continuous discharge for 180 days or more, shall submit a Salinity Evaluation and Minimization Plan within 60 days of initiating a new discharge under this Order, to ensure adequate measures are developed and implemented by the Discharger to reduce the discharge of salinity and by which the discharger will minimize any increase in effluent salinity as the result of treatment of the wastewater, if applicable. Under limited circumstances the Executive Officer may waive this requirement in the NOA. For example, for construction dewatering projects where the groundwater is naturally high in salinity.

18. **Limitations and Discharge Requirements, Section X. COMPLIANCE DETERMINATION – Modify Section X.G.** and as shown in underline/strikeout format below:

    G. Temperature Receiving Water Limitation (Section VIII.A.16). Regular receiving water monitoring is required in the Monitoring and Reporting Program (Attachment C), with a frequency specified in the NOA sufficient to evaluate the impacts of the discharge and compliance with this General Order. Regular receiving water monitoring data, measured at the upstream and downstream receiving water monitoring locations identified in the Notice of Applicability, will be used to determine compliance with section VIII.A.16~~, the temperature receiving water limitation to ensure the discharge does not cause the temperature in the receiving water to be increased more than 5°F~~.

19. **Limitations and Discharge Requirements, Section X. COMPLIANCE DETERMINATION – Insert Section X.H.** and as shown in underline format below, and renumber subsequent subsections:

    H. Temperature Effluent Limitations (Section V.A.5.d). Compliance with the final effluent limitations for temperature shall be ascertained using the daily average effluent temperature at Monitoring Location EFF-001 and the daily average temperature of the upstream receiving water measured on the same day at Monitoring Location RSW-001U.

20. **Attachment C – Monitoring and Reporting Program, Section II. MONITORING LOCATIONS -** Modify Table C-1 as shown in underline/strikeout format below:

Table C-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description [3]
--	**INF-001**	A location where a representative sample of the influent to the Facility can be collected.
001 [1, 2]	**EFF-001**	A location where a representative sample of the effluent discharged at Discharge Point 001 can be collected prior to discharging to surface water.
--	**RSW-001U**	The receiving water, approximately 200 feet upstream of Discharge Point 001 or as defined in the Notice of Applicability.
--	**RSW-001D**	The receiving water, approximately 200 feet downstream of Discharge Point 001 or as defined in the Notice of Applicability.
002 [1, 2]	**EFF-002**	If applicable, a location where a representative sample of the effluent discharged at Discharge Point 002 can be collected prior to discharging to surface water.
--	**RSW-002U**	The receiving water, approximately 200 feet upstream of Discharge Point 002 or as defined in the Notice of Applicability.
--	**RSW-002D**	The receiving water, approximately 200 feet downstream of Discharge Point 002 or as defined in the Notice of Applicability.

21. **Attachment C – Monitoring and Reporting Program, Section III. INFFLUENT MONITORING REQUIREMENTS –** Insert new Section III.B and Table C-2 as shown in underline format below, and renumber remaining tables in Attachment C:

A. Petroleum Fuel Pollution Remediation Projects

1. Each Discharger shall monitor the influent groundwater from cleanup of petroleum fuel pollution at INF-001 as follows:

Table C-2. Influent Monitoring for Petroleum Fuel Pollution Remediation Projects

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Priority Pollutants				
Benzene	µg/L	Grab	1/Month[1]	[2]
Ethylbenzene	µg/L	Grab	1/Month[1]	[2]
1,2-Dichloroethane	µg/L	Grab	1/Month[1]	[2]
Lead, Total Recoverable	µg/L	Grab	1/Month[3]	[2]
Naphthalene	µg/L	Grab	1/Month[1]	[2]
Toluene	µg/L	Grab	1/Month[1]	[2]
Non-Conventional Pollutants				
Di-isopropyl ether	µg/L	Grab	1/Month[1]	[2]
Ethanol	µg/L	Grab	1/Month[1]	[2]
Ethyl Tertiary Butyl Ether	µg/L	Grab	1/Month[1]	[2]
Methanol	µg/L	Grab	1/Month[1]	[2]
Methyl Tertiary Butyl Ether	µg/L	Grab	1/Month[1]	[2]
Tertiary Amyl Methyl Ether	µg/L	Grab	1/Month[1]	[2]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Tertiary Butyl Alcohol	µg/L	Grab	1/Month[1]	[2]
Total Petroleum Hydrocarbons (Gasoline Range)	µg/L	Grab	1/Month[1]	[2]
Total Petroleum Hydrocarbons (Diesel Range)	µg/l	Grab	1/Month[1]	[2]
Xylene[4]	µg/L	Grab	1/Month[1]	[2]

[1] If these constituents are not present in any monitoring well or extraction well at the cleanup site, the monitoring well documentation may be submitted in lieu of the influent monitoring for these constituents. Confirmation samples on an annual basis shall be submitted to verify the absence of these chemicals. If three consecutive monthly influent sampling events result in non-detectable concentration, at appropriate detection limits, then the sampling frequency shall be reduced to quarterly. If three consecutive quarterly sampling events results in non-detectable concentration, at appropriate detection limits, then the sampling frequency shall be reduced to annually. If a detectable concentration is determined to be present in the wastewater, the frequency will be monthly.

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136.

[3] If lead is not detected in the first two sampling events, then testing may be discontinued thereafter.

[4] Xylene includes o-xylene, m-xylene, and p-xylene.

22. **Attachment C – Monitoring and Reporting Program, Section IV. EFFLUENT MONITORING REQUIREMENTS –** Modify Section IV.A.1 and Table C-2 as shown in underline/strikeout format below:

A. Monitoring Location EFF-001:

1. Each Discharger shall monitor the Tier 1, Tier 2, or Tier 3 waste discharge at Monitoring Location EFF-001 as follows. ~~This table is repeated in Attachment F for use by Central Valley Water Board staff and inclusion with the NOA.~~ The NOA will specify which constituents must be monitored regularly for each discharge point. Monitoring results are to be submitted in the ~~Quarterly~~ self-monitoring reports (SMR's).

Table C-2~~2~~3 Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
Discharge Flow Rate, Total	~~GPD[1]~~	~~Estimated[1]~~	[1]	[2]
~~Discharge Flow Rate, Total~~	~~MGD~~	~~Meter~~	~~1~~	~~2~~
pH	standard units	Grab	[1]	[2, 3, ~~4~~]
Color	Color Units	Grab	~~1~~	~~3~~
Nitrate plus Nitrite (as N) [11]	mg/L	Grab	[1]	[3]

[1] The minimum sampling frequency (e.g., 2/Week, 1/Month, 1/Quarter), and where applicable, units and sample type, will be specified in the Notice of Applicability (NOA).

23. **Attachment C – Monitoring and Reporting Program, Section IV. EFFLUENT MONITORING REQUIREMENTS –** Insert new Section IV.D and Table C-4 as shown in underline format below, and renumber remaining tables in Attachment C:

D. Effluent Monitoring for Petroleum Fuel Pollution Remediation Projects

1. For discharges from petroleum fuel pollution cleanup projects, effluent samples shall be collected at EFF-001 and analyzed in accordance with Table C-4, as specified in the NOA:

Table C-4. Effluent Monitoring for Petroleum Fuel Pollution Remediation Projects

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	GPD	Estimate	1/Day[1]	[2]
Conventional Pollutants				
pH	standard units	Grab	1/Month	[2]
Priority Pollutants				
Benzene	µg/L	Grab	1/Month[3]	[2,4]
Ethylbenzene	µg/L	Grab	1/Month[3]	[2,4]
1,2-Dichloroethane	µg/L	Grab	1/Month[3]	[2,4]
Lead, Total Recoverable	µg/L	Grab	1/Month[5]	[2,4]
Naphthalene	µg/L	Grab	1/Month[3]	[2,4]
Toluene	µg/L	Grab	1/Month[3]	[2,4]
Non-Conventional Pollutants				
Carcinogenic PAHs[6]	µg/L	Grab	1/Month[3]	[2]
Di-isopropyl Ether	µg/L	Grab	1/Month[3]	[2]
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month	[2]
Ethanol	µg/L	Grab	1/Month[3]	[2]
Ethylene Dibromide	µg/L	Grab	1/Month[3]	[2]
Ethyl Tertiary Butyl Ether	µg/L	Grab	1/Month[3]	[2]
Hardness (as $CaCO_3$)[5]	mg/L	Grab	1/Month	[2]
Methanol	µg/L	Grab	1/Month[3]	[2]
Methyl Tertiary Butyl Ether	µg/L	Grab	1/Month[3]	[2]
Temperature	°F	Grab	1/Month	[2]
Tertiary Amyl Methyl Ether	µg/L	Grab	1/Month[3]	[2]
Tertiary Butyl Alcohol	µg/L	Grab	1/Month[3]	[2]
Total Dissolved Solids	mg/L	Grab	1/Month	[2]
Total Petroleum Hydrocarbons (Gasoline Range)	µg/L	Grab	1/Month[3]	[2]
Total Petroleum Hydrocarbons (Diesel Range)	µg/L	Grab	1/Month[3]	[2]
Xylene[6]	µg/L	Grab	1/Month[3]	[2]
Whole Effluent Toxicity (see Section V. below)	--	--	--	--

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method

[1] When discharging to surface water.

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136.

[3] 1) Analysis shall be conducted weekly for 4 consecutive weeks following initial discharge from the treatment system. 2) If any sample shows detectable concentrations, the Discharger shall immediately resample and reanalyze the effluent for the detected constituent(s), and shall continue sampling the effluent on a weekly basis until the constituent(s) concentrations are below permitted levels. 3) If three consecutive monthly sampling events result in non-detectable concentrations, at appropriate detection limits, then the sampling frequency shall be reduced to quarterly. 4) If a detectable concentration is determined to be present in the wastewater the frequency will revert back to monthly. 5) Subsequent to the initial testing required in 1) above, if a constituent is not present in the influent sample, then the testing for that constituent may be discontinued until detected in the influent.

[4] For priority pollutant constituents with effluent limitations, detection limits shall be below the effluent limitations. If the lowest minimum level (ML) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP) is not below the effluent limitation, the detection limit shall be the lowest ML. For priority pollutant constituents without effluent limitations, the detection limits shall be equal to or less than the lowest ML published in Appendix 4 of the SIP.

[5] If lead is not detected in the first two sampling events, then testing may be discontinued thereafter.

[6] Carcinogenic PAHs include: benzo[a]pyrene, benz[a]anthracene, benzo[b]fluroanthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenz[a,j]acridine, dibenz[a,h]acridine, dibenz[a,h]anthracene, 7H-dibenzo[c,g]carbazole, dibenzo[a,e]pyrene, dibenzo[a,h]pyrene, dibenzo[a,i]pyrene, dibenzo[a,l]pyrene, indeno[1,2,3-cd]pyrene, 5-methylchrysene, 1-nitropyrene, 4-nitropyrene, 1,6-dinitropyrene, 1,8-dinitropyrene, 6-nitrocrysene, 2-nitrofluorene, and chrysene.

[7] Monitoring shall be performed concurrently with effluent sampling for lead and cadmium, chromium (III), copper, nickel, silver, or zinc if treatment for any of the these pollutants is required.

[8] Xylene includes o-xylene, m-xylene, and p-xylene.

24. **Attachment C – Monitoring and Reporting Program, Section V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS —** Modify Section V.D.1 as shown in underline/strikeout format below:

D. WET Testing Reporting Requirements. All toxicity test reports shall include the contracting laboratory's complete report provided to the Discharger and shall be in accordance with the appropriate "Report Preparation and Test Review" sections of the method manuals. At a minimum, whole effluent toxicity monitoring shall be reported as follows:

1. Chronic WET Reporting. Regular chronic toxicity monitoring results shall be reported to the Central Valley Water Board within 30 days following completion of the test, and shall contain, at minimum:

a. The results expressed in TUc, measured as 100/NOEC, and also measured as 100/LC50, 100/EC25, 100/IC25, and 100/IC50, as appropriate.

b. The statistical methods used to calculate endpoints;

c. The statistical output page, which includes the calculation of the percent minimum significant difference (PMSD);

d. The dates of sample collection and initiation of each toxicity test; and

e. The results compared to the numeric toxicity monitoring trigger.

Additionally, the ~~quarterly~~ self-monitoring reports shall contain an updated chronology of chronic toxicity test results expressed in TUc, and organized by test species, type of test (survival, growth or reproduction), and monitoring frequency, i.e., either quarterly, monthly, or accelerated.

25. **Attachment C – Monitoring and Reporting Program, Section X. REPORTING REQUIREMENTS —** Modify Section X.A.2 and Section X.A.5 as shown in underline/strikeout format below:

A. General Monitoring and Reporting Requirements

2. Before commencing a new discharge, a representative sample of the untreated effluent shall be collected and analyzed for all the constituents identified in Table ~~C~~I-1, compared with the appropriate screening levels, and submitted with the NOI.

5. Monitoring reports shall be submitted to the Central Valley Water Board each quarter. In situations where no effluent monitoring is required, the frequency for submitting monitoring reports may be reduced to annually in the NOA. If no discharge occurred during the reporting ~~quarter~~period, the monitoring report shall document that there was no discharge.

26. **Attachment C – Monitoring and Reporting Program, Section X. REPORTING REQUIREMENTS —** Modify Section X.B.1. through Section X.B.7. Only the altered sections are shown in underline/strikeout format below**:**

B. Self-Monitoring Reports (SMR's)

~~**1.** Existing Enrolled Dischargers~~

1. ~~2.~~ At any time during the term of this permit, the State Water Board or the Central Valley Water Board may notify ~~existing~~ enrolled Dischargers to electronically submit Self-Monitoring Reports (SMR's) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). Until such notification is given, each Discharger shall electronically submit ~~hard copy~~ SMR's as described in the NOA. ~~. The CIWQS Web provides additional directions for electronic SMR submittal.~~

2. ~~3.~~ ~~Existing~~ Dischargers shall report in the ~~hard copy~~ SMR the results for all monitoring specified in this Monitoring and Reporting Program under sections III through IX. Dischargers shall submit ~~quarterly~~ SMR's including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If a 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.

~~4. When notified by the Central Valley Water Board that electronic submittal of SMRs is required, the existing Dischargers shall comply with the instructions for New Authorized Dischargers, directly below.~~

~~**2.** New Authorized Dischargers~~

~~New authorized Dischargers shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS Web site provides additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.~~

~~New Authorized Dischargers shall report in the electronic SMR the results for all monitoring specified in this MRP under sections III through IX. The Executive Officer will determine the appropriate reporting intervals in the NOA. The Discharger shall submit quarterly SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.~~

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

Table C-2. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date[1]
1/Discharge Event	Notice of Applicability effective date	All	1 May 1 August 1 November 1 February
Continuous	Notice of Applicability effective date	All	1 May 1 August 1 November 1 February
1/Hour	Notice of Applicability effective date	Hourly	1 May 1 August 1 November 1 February
1/Day	Notice of Applicability effective date	Midnight through 11:59 PM (or any 24-hour period that reasonably represents a calendar day for purposes of sampling).	1 May 1 August 1 November 1 February
1/Week	Notice of Applicability effective date	Sunday through Saturday	1 May 1 August 1 November 1 February
1/Month	Notice of Applicability effective date	1st day of calendar month through last day of calendar month	1 May 1 August 1 November 1 February

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date[1]
1/Quarter	Notice of Applicability 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
2/Year	Notice of Applicability effective date	1 January through 30 June 1 July through 31 December	1 August 1 February
1/Year	Notice of Applicability effective date	1 January through 31 December	1 February

[1] In situations where no effluent monitoring is required, the frequency for submitting SMR's may be reduced to annually in the NOA. Unless otherwise specified in the NOA, annual SMR's are due 1 February and include monitoring data for 1 January through 31 December for the previous calendar year.

7. Dischargers shall submit in the SMR's calculations and reports in accordance with the following requirements:

a. **Dissolved Oxygen Receiving Water Limitations**. The Discharger shall report in the SMR's the dissolved oxygen concentrations in the effluent (Monitoring Location EFF-001) and the receiving water (Monitoring Location RSW-001U and RSW-001D).

b. **Temperature Receiving Water Limitations**. Each Discharger shall calculate and report the temperature change in the receiving water based on the difference in temperature at Monitoring Locations RSW-001U and RSW-001D.

c. **Turbidity Receiving Water Limitations**. Each Discharger shall calculate and report the turbidity change in the receiving water turbidity based on the different turbidity at Monitoring Locations RSW-001U and RSW-001D.

d. **Temperature Effluent Limitation**. For every day receiving water temperature samples are collected at Monitoring Location RSW-001U, the Discharger shall calculate and report the difference between the daily average effluent temperature and the upstream receiving water temperature based on the difference in the daily average effluent temperature at Monitoring Location EFF-001 and the average receiving water temperature of grab samples collected at Monitoring Location RSW-001U.

27. **Attachment C – Monitoring and Reporting Program, Section X. REPORTING REQUIREMENTS —** Modify Section X.D.1 and X.D.3 as shown in underline/strikeout format below:

D. Other Reports

1. Salinity Evaluation and Minimization Plan. ~~All~~ For Dischargers with effluent electrical conductivity greater than 900 µmhos/cm, flow greater than or equal to 0.25 MGD, and continuous discharge duration 180 days or longer, shall submit a Salinity Evaluation and Minimization Plan within 60 days of initiating a new discharge under this Oder, to ensure adequate measures are developed and implemented by the Discharger to reduce the discharge of salinity and by which the discharger will minimize any increase in effluent salinity as the result of treatment of the wastewater, if applicable. Under limited circumstances the Executive Officer may waive this requirement in the NOA. For example, for

construction dewatering projects where the groundwater is naturally high in salinity.

3. **Best Management Practices (BMP) Plan.** Each Discharger with a treatment system (Tier 2 and Tier 3) authorized under this General Order shall develop and implement BMP's that include site-specific plans and procedures implemented and/or to be implemented to prevent the generation and potential release of additional pollutants from the discharge facility to waters of the State. These BMP requirements are not automatically required for Tier 1 Dischargers. However, when appropriate the Executive Officer may require the BMP requirements for Tier 1 Dischargers in the NOA. The BMP's shall be consistent with the general guidance contained in the U.S. EPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004). In particular, a risk assessment of each area identified by the Discharger shall be performed that will ensure proper operation and maintenance, prevent the additional chemicals or other substances from being introduced into the discharge, and prevent the addition of pollutants from the other non-permitted process waters, spills, or other sources of pollutants at the discharge facility. The necessary BMP's shall be identified, developed, and implemented prior to the initiation of the discharge. Each Discharger shall update and amend the BMP Plan as necessary to maintain compliance with this General Order. By the date that discharge begins, each Discharger shall make the BMP Plan available to Central Valley Water Board staff upon request..

28. **Attachment D – Fact Sheet, Section I. PERMIT INFORMATION – Insert Section I.A.3. and I.A.4** as shown in underline format below:

3. 2016 Minor Modification. On 28 October 2016 the Executive Officer issued a minor modification of the Limited Threat General Order to correct typographical errors.

4. 2018 Permit Amendment. On 1 February 2018, the Central Valley Water Board adopted Order R5-2018-0002 amending the Limited Threat General Order. A summary of the changes are described below:

a. **Salinity Evaluation and Minimization Plan.** The Limited Threat General Order includes additional requirements for discharges with elevated salinity, i.e., electrical conductivity levels greater than 900 µmhos/cm, flows greater than or equal to 0.25 MGD, and continuous discharge duration 180 days or longer. In these elevated salinity situations the discharger is required to submit a salinity evaluation and minimization plan. The Limited Threat General Order was amended to allow the Executive Officer under limited circumstances to waive this requirement in the notice of applicability (NOA). For example, for construction dewatering projects where the groundwater is naturally high in salinity. In these specific situations a salinity evaluation and minimization plan is not effective.

b. **New Temperature Requirements.**

i. **Thermal Plan.** The State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on 7 January 1971, and amended this plan on 18 September 1975. The Thermal Plan contains temperature objectives for surface waters that are applicable within the Sacramento-San Joaquin Delta. The Limited Threat General Order was amended to include the requirements of the Thermal Plan to be applied for elevated temperature waste discharges within the Sacramento-San Joaquin Delta. The effluent and receiving water temperature requirements per the Thermal Plan will be specified in the NOA.

ii. **Deer Creek Temperature Requirements.** The Water Quality Control Plan for the Sacramento-San Joaquin River Basins contains site-specific temperature limits for Deer Creek in El Dorado and Sacramento Counties. The Limited Threat General Order was amended to incorporate the site-specific receiving water limitations that will be specified in the NOA for discharges to Deer Creek.

c. **Best Management Practices (BMP's) Plan.** Each Discharger with a treatment system (Tier 2 and Tier 3) authorized to discharge under the Limited Threat General Order are required to develop and implement BMP's that include site-specific plans and procedures implemented and/or to be implemented to prevent the generation and potential release of pollutants from the discharge facility to waters of the State. In certain circumstances BMP requirements should be required for Tier 1 Dischargers. Therefore, the Limited Threat General Order was amended to allow the Executive Officer, when appropriate, to require the BMP requirements for Tier 1 Dischargers in the NOA.

d. **Secondary Maximum Contaminant Levels (MCLs) (Iron and Manganese).** The State Water Board Division of Drinking Water (DDW) has developed Secondary MCL - Consumer Acceptance Limits for iron and manganese. The Secondary MCLs are drinking water standards contained in Title 22 of the California Code of Regulations and are derived from human welfare considerations (e.g., taste, odor, laundry staining), not for toxicity. DDW has advised that compliance with the dissolved fraction of MCLs in source waters is fully protective of the MUN beneficial use. Furthermore, iron and manganese are not toxic contaminants, therefore, short-term exceedances do not result in any health consequence and DDW recommends compliance with the Secondary MCLs based on annual average concentrations. The Limited Threat General Order was amended to specify that the screening levels for iron and manganese based on the Secondary MCLs are established as dissolved metals and, when sufficient data exists, the reasonable potential analyses can be conducted based on the annual average effluent concentration.

e. **Acute Whole Effluent Toxicity.** The Limited Threat General Order requires that all Tier 2 and Tier 3 discharges must submit acute whole effluent toxicity data with the Notice of Intent (NOI) application. While acute toxicity is a concern for Tier 3 discharges (i.e., hard rock mines), Tier 2 dischargers are limited threat discharges that are not expected to exhibit acute toxicity. Therefore, the Limited Threat General Order was amended to remove the requirement to submit acute whole effluent toxicity data with the NOI. When applicable the Executive Officer will establish acute whole effluent toxicity monitoring requires in the NOA.

f. **Attachment F Removal.** Attachment F to the Limited Threat General Order was originally planned to be used as an attachment to the NOA to establish the monitoring requirements. However, to reduce the size of the NOAs and for clarification purposes the effluent and receiving water monitoring requirements are being established as tables within the NOAs. Therefore, there is no longer a need to include Attachment F and the Limited Threat General Order was amended to remove the attachment.

g. **General Order for Treated Groundwater from Cleanup of Petroleum Fuel Pollution, Order R5-2013-0075.** The presence of petroleum constituents in groundwater at various sites throughout the Central Valley Region poses a threat to existing and potential beneficial uses of the groundwater. As responsible parties investigate and remediate these sites, the number of groundwater cleanups of petroleum constituents is increasing. Remediation at many of these sites includes groundwater treatment, with discharge of the treated groundwater. General Order R5-2013-0075 was developed to regulate the discharge of treated groundwater from cleanups of petroleum constituents to waters of the United States. This Order has been amended to regulate discharges of treated groundwater from cleanups of petroleum fuel pollution. It replaces the previous Petroleum General Order R5-2013-0075.

29. **Attachment D – Fact Sheet, Section I. PERMIT INFORMATION –** Modify Section I.B as shown in underline/strikeout format below:

This Limited Threat General NPDES Order is designed to allow limited threat waste discharges to surface waters or surface water drainage courses as long as the discharge does not include human waste or acid mine drainage. Surface waters or surface water drainage courses include but are not limited to streams, dry stream courses, ephemeral streams, creeks, rivers, lakes, reservoirs, and storm drains. Although the primary focus of the Central Valley Water Board is water quality, the program deals with all environments, including surface water, groundwater, soil, sediment, the vadose zone, and air. Tier 1 discharges are clean or relatively clean wastewater projects and include but are not limited to well development, construction dewatering, pump/well testing, pipeline pressure testing, pipeline flushing or dewatering, condensate, water supply systems, aggregate mines, and filter backwash. Tier 2 discharges are those that require treatment prior to discharge and include but are not limited to discharges that may contain low levels of toxic organic constituents, volatile organic compounds (VOCs), petroleum fuel pollution constituents, pesticides, inorganic constituents, chlorine, and other chemical constituents that require treatment prior to discharge such as industrial facilities, dry cleaners, pipeline leaks and

spills, underground tanks, aboveground tank farms, petroleum fuel pollution groundwater remediation projects, pesticide and fertilizer facilities, superchlorination projects, equipment decontamination, and brownfields. Tier 3 discharges are liquid mine waste discharges from hard rock mines.

30. **Attachment D – Fact Sheet, Section II. DISCHARGE INFORMATION –** Modify Section II as shown in underline/strikeout format below:

Tier 1: Clean or relatively pollutant-free wastewaters that pose little or no threat to water quality.

Tier 1A. Discharges of less than 0.25 million gallons per day (MGD) ~~and/~~or less than 4 months in duration (or as determined by the Executive Officer); and

Tier 1B. Discharges greater than or equal to 0.25 MGD and~~/or~~ greater than or equal to 4 months ~~or greater~~ in duration (or as determined by the Executive Officer).

Tier 2: Wastewater that may contain toxic organic constituents, volatile organic compounds (VOCs), pesticides, inorganic constituents, chlorine, and other chemical constituents for which treatment technologies are well-established to eliminate constituents that pose a threat to water quality and that require treatment prior to discharge.

Filter bags or other filtration units for removal/reduction of turbidity may or may not be considered treatment by the Executive Officer. Wastewaters that may be covered under this General Order as a Tier 2 Discharger include but are not limited to the following:

a. Superchlorination projects;

b. Equipment decontamination projects;

c. Wastewater from cleanup sites including industrial facilities, dry cleaners, pipeline leaks and spills, underground tanks, aboveground tank farms, petroleum fuel pollution, pesticide and fertilizer facilities, and brownfields; and

d. Miscellaneous discharges that do not meet effluent limitations without treatment.

Tier 3: Hard rock mines often discharge wastewater to surface waters. Treatment is often required prior to discharge. Wastewater from hard rock mines will be covered under this General Order as a Tier 3 discharger. (Discharges from aggregate mines may be included in Tier 1 or Tier 2.)

31. **Attachment D – Fact Sheet, Section II. DISCHARGE INFORMATION –** Modify Table D-1 as shown in underline/strikeout format below:

Table D-1. Eligible Discharges with Applicable Permits

Type of Discharge	**Wastewater Does Not Exceed Screening Levels, Y/N?**	**Maximum Daily Discharge < 0.25 MGD ~~and~~/or < 4 months**	**Maximum Daily Discharge ≥ 0.25 MGD and/~~or~~ ≥ 4 months**
Well Development Water	Y[1]	Tier 1A	Tier 1B
Construction Dewatering	Y[1]	Tier 1A	Tier 1B
Pump/Well Testing	Y[1]	Tier 1A	Tier 1B
Pipeline/Tank Pressure Testing	Y[1]	Tier 1A	Tier 1B
Pipeline/Tank Flushing or Dewatering	Y[1]	Tier 1A	Tier 1B
Condensate	Y[1]	Tier 1A	Tier 1B
Water Supply System s	Y[1]	Tier 1A	Tier 1B
Aggregate Mines	Y[1]	Tier 1A	Tier 1B
Filter Backwash Water	Y[1]	Tier 1A	Tier 1B
Miscellaneous Wastewaters ~~that Meet Effluent Limitations~~ without a Treatment System	Y[1]	Tier 1A	Tier 1B
~~Miscellaneous Wastewaters that Do Not Meet Effluent Limitations without Treatment~~	~~N~~	~~Tier 2~~	~~Tier 2~~
Superchlorination Project Wastewaters that Do Not Meet Effluent Limitations without Treatment	N	Tier 2	Tier 2
Equipment Decontamination Wastewaters that Do Not Meet Effluent Limitations without Treatment	N	Tier 2	Tier 2
Wastewaters from Cleanup Sites That Do Not Meet Effluent Limitations without Treatment	N	Tier 2	Tier 2
Groundwater Cleanup of Petroleum Fuel Pollution	Y or N	Tier 2	Tier 2
Wastewaters from Hard Rock Mines (Excluding Aggregate Mines) with or without Treatment	N	Tier 3	Tier 3

[1] If the wastewater exceeds the screening levels this type of discharge will be assigned to Tier 2.

32. **Attachment D – Fact Sheet, Section IV. GENERAL ORDER COVERAGE –** Modify Section III.A.5 as shown in underline/strikeout format below:

Discharge Type from the following list;

a. Well Development Water, which includes discharges associated with supply well installation, development, test pumping and purging;
b. Construction Dewatering;
c. Pump/Well Testing, which includes discharges associated with the operation and maintenance activities of existing pumps and wells;
d. Water Supply System, which include discharges associated with fire hydrant flushes and system operation, maintenance, and testing activities of a water supply system;
e. Pipeline/Tank Pressure Testing, which includes discharges associated with hydrostatic testing;
f. Pipeline/Tank Flushing or Dewatering, which includes discharges associated with flushing, cleaning, and disinfection;
g. Condensate, which includes discharges associated with atmospheric condensates such as refrigeration, air conditioners, and compressor condensates and cooling towers;
h. Filter Backwash waters;
i. Aggregate Mine, which includes sediment-laden wastewaters;
j. Groundwater Extraction and/or Cleanup Project
k. Superchlorination
l. Equipment Decontamination
m. Wastewater from Cleanup Site
n. Liquid mine waste from hard rock mine
o. Petroleum fuel pollution remediation projects
~~o~~p. Other

33. **Attachment D – Fact Sheet, Section IV. GENERAL ORDER COVERAGE –** Modify Section IV.G. as shown in underline/strikeout format below:

G. Screening Levels

Eligible Dischargers enrolling under this General Order are required to analyze the ~~untreated effluent~~wastewater for constituents listed in the appropriate column of Table I-1 in Attachment I and submit the results with the Notice of Intent (NOI) or application.

Attachment I contains screening levels based on water quality objectives/criteria from the California Toxics Rule (CTR), applicable Basin Plans, and other constituents and pollutants of concern. The most restrictive criteria are necessary because this Order is intended as a general order and covers limited threat discharges to all surface waters in the Central Valley of California. If MUN is a beneficial use of the surface water, then the most restrictive human health based criteria are used. If MUN is not a beneficial use, then the most restrictive human health based criteria may not be necessary. If the aquatic life criteria are more restrictive than the human health based criteria, then the aquatic life criteria are used.

If the analytical test results of the discharge show that constituent concentrations do not exceed the screening levels, then the Discharger will be enrolled under this Order as a Tier 1 discharger.

If the analytical test results of the discharge show that constituent concentrations exceed the Attachment I, section II and section III screening levels, then the Discharger will be enrolled under this Order as a Tier 2 discharger and treatment will be required.

If the proposed project/site is a Hard Rock Mine, then the Discharger will be enrolled under this Order as a Tier 3 discharger.

The Executive Officer shall indicate the appropriate Tier, applicable effluent limitations, and monitoring requirements in the Notice of Applicability (NOA) when a Discharger is enrolled under this permit.

Attachment I also includes screening requirements for several parameters which do not have applicable water quality criteria. If the analytical test results of the discharge show that these parameters are present in the effluent, then the Discharger will be enrolled under this Order and will be required to conduct additional effluent and downstream receiving water sampling to determine compliance with receiving water limitations.

34. **Attachment D – Fact Sheet, Section V. APPLICABLE PLANS, POLICIES, AND REGULATIONS –** Modify Section V.D as shown in underline/strikeout format below:

D. Other Plans, Policies and Regulations ~~– Not Applicable~~

a. Thermal Plan. The State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on 7 January 1971, and amended this plan on 18 September 1975. This plan contains temperature objectives for surface waters that are applicable within the Sacramento-San Joaquin Delta. For elevated temperature waste discharges within the Sacramento-San Joaquin Delta, effluent and receiving water temperature requirements are applicable and will be specified in the Notice of Applicability.

35. **Attachment D – Fact Sheet, Section VI. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS –** Modify Section VI.B.1 as shown in underline/strikeout format below:

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~~ Active hard rock mines with discharges authorized by this General Order must meet minimum federal technology-based requirements based on Effluent Limitations Guidelines and Standards (ELG's) for the Copper, Lead, Zinc, Gold, Silver, and Molybdenum Ores Subcategory of the Ore Mining and Dressing Point Source Category in 40 C.F.R. part 440, subpart J and/or 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:

36. **Attachment D – Fact Sheet, Section VI. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS –** Modify Section VI.B.2.b as shown in underline/strikeout format below:

b. Technology-Based Effluent Limitations for Remediation Sites

Since this General Order regulates the discharge of wastewater that may be impacted by toxic organic constituents, VOC's, pesticides, inorganic constituents and other regulated chemical constituents, various types of treatment systems could be employed to remove these pollutants in wastewater to meet applicable permit limits. For example, air stripping, carbon absorption, or chemical oxidation treatment systems could be used to remove VOC's in groundwater. Reverse osmosis, ion exchange, or pH adjustment could be used as treatment technologies to remove metals. Biological systems could be used to degrade or remove conventional pollutants and semi-volatile organic compounds.

Technology-based effluent limitations for remediation of VOC's with proven technology have been included in this General Order, as shown in Table D-3. These effluent limitations reflect the expected performance of existing treatment technologies. However, with the potential diversity of limited threat discharges and the uncertainty regarding the specific constituents of concern to be regulated, this General Order does not establish technology-based effluent limitations based on the performance of non-proven treatment technologies that may be used at specific remediation projects. According to 40 C.F.R. section 122.44(k), best management practices (BMP's), can be required in lieu of technology-based effluent limitations when numeric effluent limitations are infeasible. Therefore, based on BPJ, BMP's will serve as the equivalent of technology-based effluent limitations, in order to carry out the purposes and intent of the CWA. Each Discharger of limited threat discharges is required to develop and implement BMPs that establish site-specific plans and procedures that will ensure proper operation and maintenance, prevent the addition of chemicals or other substances from being introduced into the wastewater, and prevent the addition of pollutants from other non-permitted process waters, spills, or other sources of pollutants at the facilities.

Water quality based effluent limitations may also be required for the constituents in Table D-3. The more stringent of the water quality-based effluent limitations and the technology-based effluent limitations will be established in the NOA.

37. **Attachment D – Fact Sheet, Section VI. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS –** Modify Table D-3. Technology-based Effluent Limitations for Remediation Sites as shown in underline/strikeout format below:

Table D-3. Technology-based Effluent Limitations for Remediation Sites

Parameter	Units	Maximum Daily Effluent Limitations
Methylene Chloride ~~Dichloromethane~~	µg/L	0.5
MTBE (Methyl tertiary butyl ether)	µg/L	0.5

38. **Attachment D – Fact Sheet, Section VI. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS –** Modify Section VI.B.2.c and Table D-4 as shown in underline/strikeout format below:

c. Technology-Based Effluent Limitations for Active Hard Rock Mines

ELG's for discharges from mines that produce copper, lead, zinc, gold, silver, or molybdenum bearing ores, or any combination of these ores from open-pit or underground operations other than placer deposits have been promulgated at 40 C.F.R. part 440, subpart J. 40 C.F.R. sections 440.102(a) and 440.103(a) established technology-based effluent limitations representing BPT and BAT, respectively, for pollutants discharged in mine drainage as follows:

Table D-4. Technology-based Effluent Limitations for Active Hard Rock Mines

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	standard units	--	--	6.0	9.0
Total Suspended Solids	mg/L	20	30	--	--
Cadmium, Total Recoverable	µg/L	50	100	--	--
Copper, Total Recoverable	µg/L	150	300	--	--
Lead, Total Recoverable	µg/L	300	600	--	--
Mercury, Total Recoverable	µg/L	1.0	2.0	--	--
Zinc, Total Recoverable	µg/L	750	1,500	--	--

Water quality-~~-~~based effluent limitations may also be required ~~established in the NOA~~ for the constituents in Table D-4. The more stringent of the water quality ~~-~~based effluent limitations ~~will be more stringent than~~and the technology-based effluent limitations will be established in the NOA.

39. **Attachment D – Fact Sheet, Section VI. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS –** Add new Section VI.B.2.d and Table D-5 as shown in underline/strikeout format below:

d. Technology-Based Effluent Limitations for Petroleum Fuel Pollution Remediation Projects

The primary constituents of concern with petroleum products are total petroleum hydrocarbons in the gasoline, diesel, and heavier ranges, and may include jet fuel, motor oil, kerosene, and other fuel oils; benzene; toluene; ethylbenzene; xylene; and methyl tertiary butyl ether. In addition, other oxygenates and additives such as methanol, tertiary butyl alcohol, di-isopropyl ether, ethyl tertiary butyl ether, and tertiary amyl methyl ether may also be found in groundwater from cleanup of petroleum fuel pollution. Existing wastewater treatment technology, primarily utilizing air stripping and/or activated carbon, is capable of dependably removing these constituents to concentrations that are generally non-detectable by current analytical technology.

Order R5-2013-0075 established technology-based effluent limitations for a number of pollutants based on the analytical capability at that time (as

represented by the analytical method reporting level). This Order also establishes technology-based effluent limitations based on the current reporting levels for the pollutants of concern.

Table D-5. Technology-Based Effluent Limitations for Petroleum Fuel Pollution Remediation Projects

Parameter	Units	Maximum Daily Effluent Limitation
Benzene	µg/L	0.5
Di-isopropyl Ether	µg/L	5.0
Ethylbenzene	µg/L	0.5
Ethylene Dibromide	µg/L	0.5
1,2-Dichloroethane	µg/L	0.5
Ethyl Tertiary Butyl Ether	µg/L	5.0
Methanol	µg/L	20
Methyl Tertiary Butyl Ether	µg/L	1.0
Naphthalene	µg/L	5.0
Tertiary Amyl Methyl Ether	µg/L	1.0
Tertiary Butyl Alcohol	µg/L	10
Toluene	µg/L	0.5
Total Petroleum Hydrocarbons (Gasoline Range)	µg/L	50
Total Petroleum Hydrocarbons (Diesel Range)	µg/L	50
Xylene[1]	µg/L	0.5

[1] Applies to the sum of o-xylene, m-xylene, and p-xylene.

40. **Attachment D – Fact Sheet, Section VI. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS –** Modify Sections VI.C.3.e, f, g, l, and o as shown in underline/strikeout format below:

e. Ammonia. Untreated domestic wastewater contains ammonia in concentrations that, without treatment, would be harmful to fish and would violate the Basin Plan narrative toxicity objective if discharged to the receiving water. To be authorized by this General Order, all Dischargers of limited threat discharges to surface waters and surface water drainage courses must demonstrate that the wastewater to be discharged does not contain human sewage and does not contain a screening level of ammonia exceeding 0.025 mg/L (as N). Consequently, the Central Valley Water Board finds the limited threat discharges, in the Sacramento and San Joaquin River Basins, authorized by this General Order will not exhibit reasonable potential to cause or contribute to an exceedance of the narrative toxicity objective for ammonia, and this Order does not include effluent limitations for ammonia.

This General Order includes receiving water limitations for unionized ammonia such that un-ionized ammonia shall not be present in amounts that adversely affect beneficial uses for all waterbodies, nor to be present in excess of 0.025 mg/L (as N) in waterbodies in the Tulare Lake Basin.

This General Order includes sampling requirements for ammonia in Attachment C. If the analytical test results of the wastewater ~~prior to any treatment~~ indicate significant concentrations of ammonia in the discharge, the Discharger will not

be enrolled under this General Order and will be required to submit an ROWD for an individual NPDES permit.

f. Iron. The Secondary MCL – Consumer Acceptance Limit for iron is 300 µg/L (dissolved), which is used to implement the Basin Plan's chemical constituent objective for the protection of the municipal and domestic supply beneficial use.

This General Order contains a screening level for iron of 300 µg/L when the MUN beneficial use is applicable and no screening level when the MUN beneficial use is not applicable. This Order also contains an effluent limitation for iron based on the criteria discussed above. Based on the monitoring requirements, if the proposed discharge contains concentrations of iron above the screening level and the discharge is planned for more than one year, the Notice of Applicability may include an iron effluent limitation and a requirement for treatment of iron. If sufficient data is available, the RPA for iron will be evaluated based on an annual average.

g. Manganese. The Secondary MCL – Consumer Acceptance Limit for manganese is 50 µg/L (dissolved), which is used to implement the Basin Plan's chemical constituent objective for the protection of municipal and domestic supply.

This General Order contains screening levels for manganese of 50 µg/L when the MUN beneficial use is applicable and no screening level when the MUN beneficial use is not applicable. This Order also contains effluent limitations for manganese based on the criteria discussed above. Based on the monitoring requirements, if the proposed discharge contains concentrations of manganese above the screening level and the discharge is planned for more than one year, the Notice of Applicability may include a manganese effluent limitation and a requirement for treatment of manganese. If sufficient data is available, the RPA for manganese will be evaluated based on an annual average.

l. Salinity. 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 USEPA Ambient Water Quality Criteria for Chloride recommends acute and chronic criteria for the protection of aquatic life. There are no USEPA water quality criteria for the protection of aquatic life for electrical conductivity, total dissolved solids, and sulfate. Additionally, there are no USEPA 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. The Central Valley Water Board is currently implementing the CV-SALTS initiative to develop a Basin Plan Amendment that will establish a salt and nitrate Management Plan for the Central Valley. Through this effort the Basin Plan will be amended to define how the narrative water quality objective is to be interpreted for the protection of agricultural use. All studies conducted through this Order to establish an agricultural limit to implement the narrative objective will be reviewed by and consistent with the efforts currently underway by CV-SALTS.

i. **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.

ii. **Electrical Conductivity.** 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. The agricultural water quality goal, that is used as a screening level, is 700 µmhos/cm as a long-term average based on Water Quality for Agriculture, Food and Agriculture Organization of the United Nations—Irrigation and Drainage Paper No. 29, Rev. 1 (R.S. Ayers and D.W. Westcot, Rome, 1985). The 700 µmhos/cm agricultural water quality goal is intended to prevent reduction in crop yield, i.e. a restriction on use of water, for salt-sensitive crops, such as beans, carrots, turnips, and strawberries. These crops are either currently grown in the area or may be grown in the future. Most other crops can tolerate higher EC concentrations without harm, however, as the salinity of the irrigation water increases, more crops are potentially harmed by the EC, or extra measures must be taken by the farmer to minimize or eliminate any harmful impacts.

iii. **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.

iv. **Total Dissolved Solids.** The Secondary MCL for 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.

Limited Threat General Order R5-2013-0073-01 contained screening levels and effluent limitations for electrical conductivity. The screening level was 700 µmhos/cm. The effluent limitations were for groundwater remediation projects only and were 700 µmhos/cm, with the beneficial use of Agricultural Irrigation, and 900 µmhos/cm, without the beneficial use of Agricultural Irrigation. Both effluent limitations were applied as monthly averages to discharges from groundwater cleanup sites only. This General Order contains a screening level for electrical conductivity of 900 µmhos/cm. Based on the monitoring requirements, if the proposed discharge contains concentrations of electrical ~~conductivity above the screening level~~greater than 900 µmhos/cm, flows are greater than or equal to 0.25 MGD, and continuous discharge duration is 180 days or longer, the Discharger must submit a Salinity Evaluation and Minimization Plan to ensure adequate measures are developed and implemented by the Discharger to reduce the discharge of salinity and by which the Discharger will minimize any increase in effluent salinity as the result of treatment of the wastewater, if applicable. Under limited circumstances the Executive Officer may waive this requirement in the NOA. For example, for construction dewatering projects where the groundwater is naturally high in salinity.

The salinity of all discharges within the Sacramento and San Joaquin River Basins and within the Tulare Lake Basin shall not exceed any applicable TMDLs, Delta standards, or Basin Plan water quality objectives or numeric

limits. Effluent limitations shall be established on a water-body-specific basis, as applicable and shall be as electrical conductivity (EC), total dissolved solids (TDS), and/or chloride**.** Anti-backsliding issues are discussed below in section VI.D.3 of this Fact Sheet.

o. Temperature. For elevated temperature waste discharges within the Sacramento-San Joaquin Delta the Thermal Plan requirements are applicable. The Thermal Plan requires that, "*The maximum temperature shall not exceed the natural receiving water temperature by more than 20°F*." If applicable, an effluent limit for temperature will be specified in the NOA.

41. **Attachment D – Fact Sheet, Section VI. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS –** Add new Section VI.C.3.p and new Table D-6 as shown in underline/strikeout format below:

p. Petroleum Constituents. Discharges of groundwater from cleanup of petroleum fuel pollution has a reasonable potential to cause or contribute to an in-stream excursion above water quality objectives for petroleum products, specifically, benzene, ethylbenzene, ethylene dibromide, 1,2-Dichloroethane, methanol, methyl tertiary butyl ether, naphthalene, carcinogenic PAHs, toluene, total petroleum hydrocarbons, and xylene. In order to protect the receiving water when discharging groundwater from cleanup of petroleum fuel pollution, this Order contains water quality-based effluent limitations or technology-based effluent limitations for these constituents, whichever are more stringent. The applicable water quality-based effluent limitations for the abovementioned petroleum products are discussed below.

(i) **Benzene.** The California Division of Drinking Water Primary MCL for benzene is 1 µg/L and the CTR contains a human health criterion of 1.2 µg/L based on the consumption of water and organisms. WQBEL's based on the primary MCL are an AMEL and MDEL or 1 µg/L and 2 µg/L, respectively. WQBEL's are not included in this Order for benzene because the applicable technology-based effluent limitation is more stringent. Order R5-2013-0075 established effluent limitations for benzene of 0.35 µg/L as a daily maximum based on the Cal/EPA Office of Environmental Health Hazard Assessment (OEHHA) Cancer Potency Factor as a Drinking Water Level for benzene. The promulgated primary MCL is the appropriate water quality objective to apply for benzene to protect the MUN beneficial use. This relaxation of effluent limitations complies with antidegradation and antibacksliding requirements (see Section VI.D).

(ii) **Ethylbenzene.** The USEPA Secondary MCL-Consumer Acceptance Limit for ethylbenzene as a taste and odor threshold is 30 µg/L. The WQBEL's based on the Secondary MCL are an AMEL and MDEL of 47 µg/L and 93 µg/L, respectively. WQBEL's are not included in this Order for ethylbenzene because the applicable technology-based effluent limitation is more stringent.

(iii) **Ethylene Dibromide (1,2-Dibromomethane).** The California Primary MCL for ethylene dibromide is 0.05 µg/L. For discharges to waterbodies with the MUN beneficial use, an AMEL and an MDEL of

0.05 µg/L and 0.10 µg/L, respectively, have been established in this Order for ethylene dibromide based on protection of the Basin Plans' narrative chemical constituents objective.

(iv) **Ethylene Dichloride (1,2-Dichloroethane).** The CTR includes a criterion for ethylene dichloride of 0.38 µg/L for the protection of human health and is based on a one-in-a-million cancer risk for waters from which both water and organisms are consumed. For discharges to waterbodies with the MUN beneficial use, an AMEL and an MDEL for ethylene dichloride of 0.38 µg/L and 0.76 µg/L, respectively, are applicable to the discharge. However, as discussed further in section VI.B.2.d of this Fact Sheet, the technology-based effluent limitation of 0.5 µg/L as an MDEL is more stringent than the water quality-based MDEL and is the basis for the final MDEL for ethylene dichloride in this Order.

(v) **Methanol.** The USEPA Integrated Risk Information System (IRIS) Reference Dose as a Drinking Water Level for methanol is 14,000 µg/L (there are no MCLs or CTR criteria for methanol). As discussed further in section VI.B.2.d of this Fact Sheet, WQBEL's are not included in this Order for methanol because the applicable technology-based effluent limitation is more stringent.

(vi) **Methyl Tertiary Butyl Ether.** The Secondary MCL-Consumer Acceptance Limit for methyl tertiary butyl ether is 5 µg/L. The WQBELs based on the Secondary MCL are an AMEL and MDEL of 8 µg/L and 16 µg/L, respectively. As discussed further in section VI.B.2.d of this Fact Sheet, WQBEL's are not included in this Order for methyl tertiary butyl ether because the applicable technology-based effluent limitation is more stringent.

(vii) **Naphthalene.** The California Notification Level for naphthalene is 17 µg/L (there are no MCLs or CTR criteria for naphthalene). The WQBEL's based on the Notification Level are an AMEL and MDEL of 17 µg/L and 34 µg/L, respectively. As discussed further in section VI.B.2.d of this Fact Sheet, WQBEL's are not included in this Order for naphthalene because the applicable technology-based effluent limitation is more stringent.

(viii) **Polynuclear Aromatic Hydrocarbons.** USEPA has developed recommended Ambient Water Quality Criteria for carcinogenic polynuclear aromatic hydrocarbons (PAHs) based on a one-in-a-million cancer risk estimate for sources of drinking water at 0.0044 µg/L. For discharges to waterbodies with the MUN beneficial use, an AMEL and an MDEL of 0.0044 µg/L and 0.0088 µg/L, respectively, have been established in this Order for carcinogenic PAHs based on the protection of the MUN beneficial use.

(ix) **Toluene.** The USEPA Secondary MCL-Consumer Acceptance Limit for toluene as a taste and odor threshold is 40 µg/L. The WQBEL's based

on the taste and odor threshold are an AMEL and MDEL of 62 µg/L and 125 µg/L, respectively. As discussed further in section VI.B.2.d of this Fact Sheet, WQBEL's are not included in this Order for toluene because the applicable technology-based effluent limitation is more stringent.

(x) **Total Petroleum Hydrocarbons (Gasoline and Diesel Ranges).** The USEPA Suggested-No-Adverse-Response-Level (SNARL) for diesel oil is 100 µg/L. The WQBELs based on the SNARL are an AMEL and MDEL of 100 µg/L and 200 µg/L, respectively. As discussed further in section VI.B.2.d of this Fact Sheet, WQBEL's are not included in this Order for total petroleum hydrocarbons because the applicable technology-based effluent limitation is more stringent.

(xi) **Xylene.** The USEPA Secondary MCL-Consumer Acceptance Limit for xylene as a taste and odor threshold is 20 µg/L. The WQBEL's based on the taste and odor threshold are an AMEL and MDEL of 31 µg/L and 62 µg/L, respectively. As discussed further in section VI.B.2.d of this Fact Sheet, WQBEL's are not included in this Order for xylene because the applicable technology-based limit is more stringent.

Table D-6. WQBELs for Petroleum Constituents

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Benzene	µg/L	1[3]	2[3]
Ethylbenzene	µg/L	47[3]	93[3]
Ethylene Dibromide (1,2-Dibromomethane)	µg/L	0.05	0.10
Ethylene Dichloride (1,2-Dichloroethane)	µg/L	0.38	0.76[3]
Methanol	µg/L	3,500[3]	7,000[3]
Methyl Tertiary Butyl Ether	µg/L	8[3]	16[3]
Naphthalene	µg/L	17[3]	34[3]
Carcinogenic Polynuclear Aromatic Hydrocarbons[1]	µg/L	0.0044	0.0088
Toluene	µg/L	62[3]	125[3]
Total Petroleum Hydrocarbons (Gasoline and Diesel Ranges)	µg/L	100[3]	200[3]
Xylene[2]	µg/L	31[3]	62[3]

[1] Applies to the sum of benzo[a]pyrene, benz[a]anthracene, benzo[b]fluroanthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenz[a,j]acridine, dibenz[a,h]acridine, dibenz[a,h]anthracene, 7H-dibenzo[c,g]carbazole, dibenzo[a,e]pyrene, dibenzo[a,h]pyrene, dibenzo[a,i]pyrene, dibenzo[a,l]pyrene, indeno[1,2,3-cd]pyrene, 5-methylchrysene, 1-nitropyrene, 4-nitropyrene, 1,6-dinitropyrene, 1,8-dinitropyrene, 6-nitrocrysene, 2-nitrofluorene, and chrysene.

[2] Applies to the sum of o-xylene, m-xylene, and p-xylene.

[3] More stringent technology-based effluent limitations applied in this Order (see section VI.B.2.d).

42. **Attachment D – Fact Sheet, Section VI. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS –** Modify Section VI.C.5 as shown in underline/strikeout format below:

For compliance with the Basin Plans' narrative toxicity objective, this General Order requires each ~~Tier 2 and~~ Tier 3 Discharger to conduct whole effluent toxicity testing for acute toxicity and submit the results with the NOI. In addition, ~~Tier 2 and~~ Tier 3 Dischargers are required to conduct acute toxicity testing every six months, or as directed in the NOA. This General Order also requires each Tier 1B, Tier 2 and Tier 3 Discharger to conduct whole effluent toxicity testing for chronic toxicity, annually, or as directed in the NOA. Monitoring and Reporting Program (Attachment C, section V) contains the specifications for WET Monitoring and Reporting. This General Order also contains numeric effluent limitations for acute toxicity and a narrative effluent limitation for chronic toxicity. This General Order, in section IX.C.3, requires the Discharger to implement best management practices (BMP's) to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity and to maintain a BMP Plan as described in Attachment C.

a. Acute Aquatic Toxicity. The Basin Plans contain a narrative toxicity objective that states, "*All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.*" (Basin Plan for the Sacramento and San Joaquin River Basins at page III-8.00 and Basin Plan for the Tulare Lake Basin at page III-6) The Basin Plans also state that, *"…effluent limits based upon acute biotoxicity tests of effluents will be prescribed where appropriate…*".

For priority pollutants, the SIP dictates the procedures for conducting the RPA. Acute toxicity is not a priority pollutant. Therefore, the Central Valley Water Board is not restricted to one particular RPA method. Therefore, due to the site-specific conditions of the potential discharges to be covered under this General Order, the Central Valley Water Board has used professional judgment in determining the appropriate method for conducting the RPA. U.S. EPA's September 2010 NPDES Permit Writer's Manual, page 6-30, states, "*State implementation procedures might allow, or even require, a permit writer to determine reasonable potential through a qualitative assessment process without using available facility-specific effluent monitoring data or when such data are not available…A permitting authority might also determine that WQBEL's are required for specific pollutants for all facilities that exhibit certain operational or discharge characteristics (e.g., WQBEL's for pathogens in all permits for POTW's discharging to contact recreational waters).*" Acute toxicity effluent limits are required to ensure compliance with the Basin Plan's narrative toxicity objective.

U.S. EPA Region 9 provided guidance for the development of acute toxicity effluent limitations in the absence of numeric water quality objectives for toxicity in its document titled "Guidance for NPDES Permit Issuance", dated February 1994. In section B.2. "Toxicity Requirements" (pgs. 14-15) it states that, "*In the absence of specific numeric water quality objectives for acute and chronic toxicity, the narrative criterion 'no toxics in toxic amounts' applies. Achievement of the narrative criterion, as applied herein, means that ambient*

waters shall not demonstrate for acute toxicity: 1) less than 90% survival, 50% of the time, based on the monthly median, or 2) less than 70% survival, 10% of the time, based on any monthly median. For chronic toxicity, ambient waters shall not demonstrate a test result of greater than 1 TUc." Accordingly, effluent limitations for acute toxicity have been included in this General Order as follows:

Acute Toxicity. Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

Minimum for any one bioassay---------- 70%

Median for any three consecutive bioassays ---------- 90%

Only discharges that do not demonstrate acute toxicity are eligible for this General Order; therefore, there is an assumption that the Tier 1 discharges do not have reasonable potential to cause or contribute to an in-stream excursion above the Basin Plan's narrative toxicity objective and the numeric limitations shown above.

Because the Tier 1 discharges authorized by this General Order are low threat discharges, they are not expected to contribute to acute toxicity. Therefore, acute WET testing is not required for Tier 1 discharges in this General Order.

The ~~Tier 2 and~~ Tier 3 discharges authorized by this General Order are expected to have the potential to be a threat to water quality. The potential impacts of acute toxicity are based on short-term exposure. ~~Tier 2 and Tier 3 Dischargers are required to conduct whole effluent toxicity testing and submit the results with the NOI application.~~ Dischargers of ~~Tier 2 and~~ Tier 3 discharges are ~~also~~ required to conduct acute WET testing every six months or as directed in the NOA, to ensure compliance with the narrative toxicity objective of the Basin Plans.

b. Chronic Aquatic Toxicity. The Basin Plans contain a narrative toxicity objective that states, "*All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life*." (Basin Plan for the Sacramento and San Joaquin River Basins at page III-8.00 and Basin Plan for the Tulare Lake Basin at page III-6.) Only discharges that do not demonstrate chronic toxicity are eligible for this General Order; therefore, there is an assumption that the Tier 1A discharges do not have reasonable potential to cause or contribute to an in-stream excursion above the Basin Plan's narrative toxicity objective.

The Tier 1A discharges authorized by this General Order do not pose a threat to water quality. Because the Tier 1A discharges authorized by this General Order <u>do not exceed applicable aquatic life water quality criteria, and</u> are low volume <u>and/or short term</u>, they are not expected to contribute to chronic toxicity. Therefore, chronic WET testing is not required for Tier 1A discharges in this General Order.

The Tier 1B, Tier 2, and Tier 3 discharges authorized by this General Order are expected to have the potential to be a threat to water quality. The

potential impacts of chronic toxicity are based on long-term exposure. To ensure compliance with the Basin Plan's narrative toxicity objective, Dischargers of Tier 1B, Tier 2, and Tier 3 discharges are required to conduct annual chronic WET testing ~~to ensure compliance with the Basin Plan's narrative toxicity objective and~~ or as directed by the Executive Officer in the Notice of Applicability ~~thereafter~~. Chronic WET testing shall be conducted~~,~~ as specified in the Monitoring and Reporting Program (Attachment C, section V). Furthermore, the Special Provision contained at section XI.C.2.a of this General Order includes a numeric toxicity monitoring trigger and requirements for accelerated monitoring to determine if a pattern of toxicity is demonstrated. Discharges that ~~demonstrate~~ cause chronic toxicity in the receiving water are not eligible for coverage under this General Order; therefore, as required in Section XI.C.2.a, if the discharge demonstrates a pattern of toxicity is causing chronic toxicity in the receiving water, the Discharger is required to submit a ROWD for issuance of an individual NPDES permit.

43. **Attachment D – Fact Sheet, Section VI.D.5 Satisfaction of Anti-Backsliding Requirements –** Add new Section VI.D.5 as shown in strikeout/underline format below:

C. Satisfaction of Anti-Backsliding Requirements – Effluent Limitations for Petroleum Constituents

The effluent limitations for benzene in this Order for discharges from petroleum fuel pollution cleanup projects are less stringent than in previous General Order R5-2013-0075 for petroleum fuel pollution groundwater cleanup projects. The relaxation of effluent limitations complies with federal antibacksliding regulations as discussed below.

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)." 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. All waterbodies in the Central Valley Region are in attainment for benzene. As discuss in Section VI.D.6, below, the relaxation of effluent limitations for benzene complies with the antidegradation requirements. Therefore, the exception to backsliding under CWA 303(d)(4)(B) is applicable.

44. **Attachment D – Fact Sheet, Section VI.D.5 Antidegradation Policies –** Add paragraph to end of Section VI.D.5 as shown in underline format below:

~~5.~~6. **Antidegradation Policies**

Effluent Limitations for Petroleum Constituents. As discussed in Section VI.D.5, the effluent limitations for benzene in this Order for discharges from petroleum fuel pollution cleanup projects are less stringent than in previous General Order R5-2013-0075 for petroleum fuel pollution groundwater cleanup projects. The change in benzene effluent limits will not result in an increased discharge of benzene. The effluent limits for the primary constituents of concern for petroleum fuel pollution groundwater cleanup projects, such as MTBE and 1,2-Dichloromethane, are carried over from previous General Order R5-2013-0075 and remain the same. To continue to meet these existing effluent limits, treatment systems for petroleum fuel pollution groundwater cleanup projects will not change, and as a result, the discharge of

benzene will also remain the same and not increase. This complies with state and federal antidegradation requirements.

45. **Attachment D – Fact Sheet, Section VIII. RATIONALE FOR PROVISIONS –** Modify Section VIII.B.3.b as shown in underline/strikeout format below:

3. Best Management Practices and Pollution Prevention

b. Salinity. The Central Valley Water Board, with the cooperation of the State Water Board, has begun the process to develop a new policy for the regulation of salinity in the Central Valley. In order to address increasing salinity levels in receiving waters throughout the Central Valley Region of California, Dischargers with electrical conductivity greater than 900 µmhos/cm, flows greater than or equal to 0.25 MGD, and continuous discharge duration 180 days or longer, enrolled under this General Order shall implement practices to minimize the discharge of salinity to the receiving water. Under limited circumstances the Executive Officer may waive this requirement in the NOA. For example, for construction dewatering projects where the groundwater is naturally high in salinity.

46. **Attachment D – Fact Sheet, Section IX. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS –** Modify Section IX.B.f as shown in underline/strikeout format below:

f. Monitoring for other constituents of concern listed in Table I~~C~~-2 to determine compliance with applicable effluent limitations.

47. **Attachment D – Fact Sheet, Section IX. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS –** Modify Section IX.C.3 and Section IX.C.4 as shown in underline/strikeout format below:

C. Whole Effluent Toxicity Testing Requirements

3. Acute Toxicity. Because Tier 1 discharges authorized by this General Order are low threat, they are not expected to contribute to acute toxicity. Therefore, acute WET testing is not required for Tier 1 discharges in this General Order. The 96-hour bioassay testing is required for ~~Tier 2 and~~ Tier 3 Dischargers, to demonstrate compliance with the effluent limitation for acute toxicity. ~~Results of acute toxicity testing are required to be submitted as part of the NOI. Thereafter, t~~The frequency of testing shall be every six months or as specified in the Notice of Applicability from the Executive Officer.

4. Chronic Toxicity. Because Tier 1A discharges authorized by this General Order are low volume and/or short-term in nature and are not expected to contribute to chronic toxicity, chronic WET testing is not required for Tier 1A discharges in this General Order. In order to demonstrate compliance with the Basin Plan's narrative toxicity objective, chronic WET testing may be specified in the NOA for~~For~~ Tier 1B, Tier 2, and Tier 3 waste discharges. ~~, chronic whole effluent toxicity testing is required in order to demonstrate compliance with the Basin Plan's narrative toxicity objective. Dischargers of limited threat and liquid mine waste discharges are required to conduct annual chronic WET testing to ensure compliance with the Basin Plan's narrative toxicity objective or as directed by the Executive Officer in the Notice of Applicability thereafter, as specified in~~ The chronic WET testing shall be conducted per the Monitoring and Reporting Program (Attachment C, section V).

48. **Attachment I – Screening Levels for Limited Threat Discharges, Section I. Screening Requirements for All Limited Threat Discharges -** Modify Section I and Table I-1 as shown in underline/strikeout format below:

I. Screening Requirements for All Limited Threat Discharges

All dischargers seeking authorization to discharge under this General Order shall sample and analyze a representative sample of the wastewater ~~prior to any treatment~~, for the constituents contained in the appropriate column in Table I-1. The analytical results shall be compared to the screening levels in Sections II and III of this Attachment. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants in order to evaluate compliance with the screening levels. All analytical results and screening determinations shall be submitted in the NOI.

Table I-1. Selection of Monitoring for Submittal with NOI

Constituents and Parameters	Limited Threat Wastewater to be Discharged [2]						
	Tier 1			Tier 2			Tier 3
	Drinking Water Supply [1]	All Other Tier 1 Wastewaters		Potable or Other Chlorinated Wastewaters	Groundwater (Not Related to Mines)	All Other Tier 2 Wastewaters	Liquid Mine Waste
		Discharge Volume < 0.25 MGD	Discharge Volume ≥ 0.25 MGD				
Biochemical Oxygen Demand (BOD) Total Suspended Solids (TSS)	No	Yes	Yes	No	Yes	Yes	No
Dissolved Oxygen (DO) Hardness pH Temperature	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Electrical Conductivity (EC) Total Dissolved Solids (TDS)	Yes	Yes	Yes	No	Yes	Yes	Yes
Turbidity	No	No	No	No	Yes	Yes	Yes
Known Wastewater Contaminants [3]	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unionized Ammonia Nitrogen, Total (as N)	No	Yes[5]	Yes[5]	No	Yes[5]	Yes[5]	No
Chlorine, Total Residual	Yes	Yes	Yes	Yes	No	No	No
Aluminum, Total Recoverable Iron, Total Recoverable[6] Manganese, Total Recoverable[6]	No	No	No	No	Yes	Yes	Yes
CTR Priority Pollutants (see Table 3-C below)	No	Yes	Yes	Yes	Yes	Yes	Yes
Standard Minerals [4]	No	No	No	No	Yes	No	Yes

Constituents and Parameters	Limited Threat Wastewater to be Discharged [2]						
	Tier 1			Tier 2			Tier 3
	Drinking Water Supply [1]	All Other Tier 1 Wastewaters		Potable or Other Chlorinated Wastewaters	Groundwater (Not Related to Mines)	All Other Tier 2 Wastewaters	Liquid Mine Waste
		Discharge Volume < 0.25 MGD	Discharge Volume ≥ 0.25 MGD				
VOC Remediation Project Constituents (Table I-5)	No	No	No	No	No	Yes[7]	No
Petroleum Fuel Pollution Constituents (Table I-6)	No	No	No	No	No	Yes[8]	No
Acute Toxicity	No	No	No	~~Yes~~No	~~Yes~~No	~~Yes~~No	Yes

1 SIP, Section 5.3.2, categorical exception to priority pollutant monitoring requirement for drinking water conducted to fulfill statutory requirements under the federal Safe Drinking Water Act or the California Health and Safety Code.

2 Monitoring shall be conducted on a representative sample of the wastewater prior to any treatment..

3 Known contaminants are those contaminants known to be present in the wastewater, but are not listed in Table C-1.

4 Standard minerals shall include the following: boron, calcium, iron, magnesium, potassium, sodium, chloride, manganese, phosphorus, total alkalinity (including alkalinity series), and hardness, and include verification that the analysis is complete (i.e., cation/anion balance).

5 Only applicable for discharges within the Tulare Lake Basin.

6 Results as total recoverable or dissolved metals may be used to evaluate compliance with the screening levels for iron and manganese. Sampling only required if discharge will last more than 1-year.

7 Only required for discharges from groundwater VOC remediation projects.

8 Only required for discharges from petroleum fuel pollution groundwater remediation projects.

49. **Attachment I – Screening Levels for Limited Threat Discharges, Section II. Screening Levels. —** Modify Section II.A as shown in underline/strikeout format below:

II. Screening Levels

A. Screening Levels for non-Priority Pollutant Constituents and Parameters of Concern. Dischargers required to sample and analyze any or all of the constituents contained in Table ~~C~~I-2 shall compare the results to the corresponding applicable screening level (MUN or non-MUN) and shall submit the results as part of the application (Notice of Intent or NOI, see Attachment J). Any exceedance of a screening level in Table ~~C~~I-2 may result in required treatment and effluent limitations as specified in the NOA from the Executive Officer.

50. **Attachment I – Screening Levels for Limited Threat Discharges, Section II. Screening Levels. —** Modify Table I-2 as shown in underline/strikeout format below:

Table I-2. Screening Levels for non-Priority Pollutant Constituents and Parameters of Concern

Constituent/Parameter [1]	Units	Screening Level (Based on MUN [2])	Screening Level (Based on No MUN [2])
Aluminum, Total Recoverable	µg/L	200 [3]	750
Un-ionized Ammonia (as N)	mg/L	0.025 [5]	0.025 [5]
Iron, ~~Total Recoverable~~Dissolved[6]	µg/L	300 [3]	--
Manganese, ~~Total Recoverable~~Dissolved[6]	µg/L	50 [3]	--
Nitrate plus Nitrite (total as N)	mg/L	10	--
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	10	10
pH	std units	6.5 – 8.5 [4]	6.5 – 8.5 [4]
Settleable Solids	mL/L	0.1	0.1
Specific Conductance (EC)	µmhos/cm	900	--
Total Suspended Solids	mg/L	10	--
Turbidity	NTU	5	5

[1] Constituents/Parameters shall be analyzed using the analytical methods described in 40 CFR Part 136 and in accordance with the General Monitoring Provisions contained in section I of the Monitoring and Reporting Program (Attachment C).

[2] MUN = Municipal and Domestic Supply Beneficial Use.

[3] Based on Secondary Maximum Contaminant Levels for taste and odor. Screening levels only applicable for discharges lasting more than 1-year.

[4] For the Sacramento San Joaquin Basin. However, pH screening for Goose Lake is 7.5 to 9.5 and the Tulare Lake Basin is 6.5 to 8.3.

[5] Only applicable for discharges within the Tulare Lake Basin.

[6] Results as total recoverable or dissolved metals may be used to evaluate compliance with the screening levels for iron and manganese.

51. **Attachment I – Screening Levels for Limited Threat Discharges, Section II. Screening Levels. —** Modify Section II.B and footnote 1 as shown in underline/strikeout format below:

B. Screening Levels for Priority Pollutants[1]. Dischargers required to sample and analyze the effluent for the constituents contained in Table ~~C~~I-3 shall compare the corresponding applicable screening level (MUN or non-MUN) and submit the results as part of the application (Notice of Intent or NOI, see Attachment J). Any exceedance of a screening level in Table I-3 may result in required treatment and effluent limitations as specified in the NOA from the Executive Officer.

[1] Not applicable for d~~D~~ischarge~~r~~s from water supply systems ~~applying~~ eligible for a categorical exception for meeting the priority pollutant criteria/objectives as authorized by section 5.3 of the ~~SIP are not required to perform wastewater sampling for the priority pollutants contained in Table C-2~~.

52. **Attachment I – Screening Levels for Limited Threat Discharges, Section II. Screening Levels. —** Modify Table I-3 as shown in underline/strikeout format below:

Table I-3. Screening Levels for Priority Pollutants

CTR #	Parameter [1]	Units	Screening Level (Based on MUN [2])	Screening Level (Based on No MUN [2])
5a	Chromium (III)[5]	µg/L	3	3
5b	Chromium (VI)[5]	µg/L	10	11

[5] Total Chromium may be sampled as a substitute for Chromium (III) and Chromium (VI) for the purpose of evaluating compliance with the screening levels.

53. **Attachment I – Screening Levels for Limited Threat Discharges, Section II. Screening Levels. —** Modify Section II.C and footnote 1 as shown in underline/strikeout format below:

C. Screening Levels for Hardness-Dependent Metals. Dischargers required to sample and analyze the effluent for the constituents contained in Table I-4A, I-4B, and I-4C shall compare the corresponding applicable screening level and submit the results as part of the application (Notice of Intent or NOI, see Attachment J). The screening levels contained in Tables I-4A, I-4B, and I-4C are based on hardness[2]. For waters with hardness concentrations less than 100 mg/L, screening levels have been segmented into 10 mg/L increments. For each segment the midpoint ~~lowest value~~ between the lower and upper bounds was used to determine the corresponding screening level. For waters with hardness concentrations greater than or equal to 100 mg/L but less than 200 mg/L, screening levels shall be based on a hardness value of 150 mg/L. For waters with lowest observed hardness concentrations greater than or equal to 200 mg/L, screening levels shall be based on a hardness value of 200 mg/L. Any exceedance of a screening level in Tables I-4A, I-4B, or Table I-4C may result in required treatment and effluent limitations as specified in the NOA from the Executive Officer.

54. **Attachment I – Screening Levels for Limited Threat Discharges, Section II. Screening Levels. —** Modify Section II.D and Table I-5 as shown in underline/strikeout format below:

D. Screening Levels for VOC Remediation Projects. All dischargers seeking authorization to discharge wastewater from VOC remediation projects under this General Order shall sample and analyze the wastewater for the constituents contained in Table I-5. The results of the analyses shall be compared to the corresponding applicable screening level and shall be submitted as part of the application (Notice of Intent or NOI, see Attachment J). VOC remediation projects are required to meet the technology-based screening levels in Table I-5. Any exceedance of a screening level in Table I-5 may result in ~~required~~ additional treatment if the Discharger cannot demonstrate the current treatment system is capable of meeting the screening levels ~~and effluent limitations as specified in the NOA from the Executive Officer~~. Table I-5 contains a partial list of VOC's and is not intended to limit the Executive Officer from identifying additional VOC's for inclusion under this General Order and as specified in the NOA.

Table I-5. Screening Levels for VOC Remediation Projects

Parameter	Units	Screening Level
1,1-Dichloroethane	µg/L	0.5
1,1-Dichloroethene	µg/L	0.5
1,1,1-Trichloroethane	µg/L	0.5
1,1,2-Trichloroethane	µg/L	0.5
1,1,2,2-Tetrachloroethane	µg/L	0.5
1,2-Dichlorobenzene	µg/L	0.5
1,2-Dichloroethane	µg/L	0.5[1]
1,2-dichloroethene (cis and trans)	µg/L	0.5
1,2-Dichloropropane	µg/L	0.5
1,2-Dibromo-3-Chloropropane	µg/L	0.5
1,2,3-Trichloropropane	µg/L	0.5
1,3-Butadiene	µg/L	0.5
1,3-Dichlorobenzene	µg/L	0.5
1,3-Dichloropropene (cis and trans)	µg/L	0.5
1,4-Dichlorobenzene	µg/L	0.5
2-Butanone	µg/L	0.5
2-Chloroethylvinyl ether	µg/L	0.5
2-Hexanone	µg/L	0.5
Acetone	µg/L	0.5
Acrolein	µg/L	0.5
Benzene	µg/L	0.5
Bromoform	µg/L	0.5
Bromomethane	µg/L	0.5
Carbon Disulfide	µg/L	0.5
Carbon Tetrachloride	µg/L	0.5[1]
Chlorobenzene	µg/L	0.5
Chlorodibromomethane	µg/L	0.5[1]
Chloroethane	µg/L	0.5
Chloroform	µg/L	0.5
Chloromethane	µg/L	0.5
Dichloromethane	µg/L	0.5
Dichlorobromomethane	µg/L	0.5
Ethylbenzene	µg/L	0.5

Parameter	Units	Screening Level
Ethylene dibromide (EDB)	µg/L	0.05[2]
MTBE (Methyl tertiary butyl ether)	µg/L	0.5
Stoddard Solvent	µg/L	0.5
Tetrachloroethylene	µg/L	0.5
Toluene	µg/L	0.5
Trichloroethylene	µg/L	0.5
Trichlorofluoromethane	µg/L	0.5
Vinyl Chloride	µg/L	0.5
Xylenes	µg/L	0.5

[1] More stringent water quality-based screening levels may be applicable in Table I-3
[2] For non-MUN designated water bodies the screening level is 0.5 µg/L.

55. **Attachment I – Screening Levels for Limited Threat Discharges, Section II. Screening Levels. —** Add new Section II.E and Table I-6 as shown in underline/strikeout format below:

E. Screening Levels for Groundwater Petroleum Fuel Pollution Cleanup Projects. All dischargers seeking authorization to discharge wastewater from Groundwater Petroleum Fuel Pollution Cleanup projects under this General Order shall sample and analyze the wastewater for the constituents contained in Table I-6. The results of the analyses shall be compared to the corresponding applicable screening level and shall be submitted as part of the application (Notice of Intent or NOI, see Attachment J). Groundwater Petroleum Fuel Pollution Cleanup projects are required to meet the screening levels in Table I-6. Any exceedance of a screening level in Table I-6 may result in additional treatment if the Discharger cannot demonstrate the current treatment system is capable of meeting the screening levels.

Table I-6. Screening Levels for Groundwater Petroleum Fuel Pollution Cleanup Projects

Parameter	Units	Screening Level
Benzene	µg/L	0.5
Ethylbenzene	µg/L	0.5[3]
1,2-Dichloroethane	µg/L	0.5[3]
Naphthalene	µg/L	5.0
Toluene	µg/L	0.5
Di-isopropyl Ether	µg/L	5
Ethylene Dibromide	µg/L	0.05[4]
Ethyl Tertiary Butyl Ether	µg/L	5
Methanol	µg/L	20
Methyl Tertiary Butyl Ether	µg/L	1.0
Carcinogenic PAHs[1]	µg/L	0.0044
Tertiary Amyl Methyl Ether	µg/L	1.0
Tertiary Butyl Alcohol	µg/L	10
Total Petroleum Hydrocarbons (Gasoline Range)	µg/L	50

Parameter	Units	Screening Level
Total Petroleum Hydrocarbons (Diesel Range)	µg/L	50
Xylene[2]	µg/L	0.5

[1] Applies to the sum of benzo[a]pyrene, benz[a]anthracene, benzo[b]fluroanthene, benzo[j]fluoranthene, benzo[k]fluoranthene, dibenz[a,j]acridine, dibenz[a,h]acridine, dibenz[a,h]anthracene, 7H-dibenzo[c,g]carbazole, dibenzo[a,e]pyrene, dibenzo[a,h]pyrene, dibenzo[a,i]pyrene, dibenzo[a,l]pyrene, indeno[1,2,3-cd]pyrene, 5-methylchrysene, 1-nitropyrene, 4-nitropyrene, 1,6-dinitropyrene, 1,8-dinitropyrene, 6-nitrocrysene, 2-nitrofluorene, and chrysene.
[2] Applies to the sum of o-xylene, m-xylene, and p-xylene.
[3] More stringent water quality-based screening levels may be applicable in Table I-3
[4] For non-MUN designated water bodies the screening level is 0.5 µg/L.

56. **Attachment I – Screening Levels for Limited Threat Discharges, Section III. Screening Requirements for Discharges to Specific Waterbodies —** Modify Section III.A as shown in underline/strikeout format below:

III. Screening Requirements for Discharges to Specific Waterbodies

A. Screening Levels for Discharges to the Sacramento River from Keswick Dam to the I Street Bridge at City of Sacramento, American River from Folsom Dam to the Sacramento River, Folsom Lake, and the Sacramento-San Joaquin Delta. In addition to the analyses required in Attachment I, dischargers seeking authorization to discharge under this General Order to the Sacramento River from Keswick Dam to the I Street Bridge at the City of Sacramento, American River from Folsom Dam to the Sacramento River, Folsom Lake, or the Sacramento-San Joaquin Delta shall sample and analyze the effluent for the constituents contained in Table ~~C~~I-6. The screening levels contained in Table I-6 for arsenic, copper, silver, and zinc supersede those contained in Attachment I.II, above, for the same parameters. The results of the analyses shall be compared to the corresponding screening levels and shall be submitted as part of the application.

57. **Attachment J - Notice of Intent —** Only sections with changes are shown. Modify as shown in underline/strikeout format below:

3. Fee Requirement (To be submitted by ~~all~~ New Dischargers.)

☐ Provide the applicable fee. Information concerning the applicable fee can be found at http://www.waterboards.ca.gov/resources/fees/. Checks must be made payable to the State Water Resources Control Board. For existing dischargers, the annual permitting fee satisfies this fee requirement when requesting continued coverage under this General Order.

5. Evaluation of Disposal/Reclamation Options (To be submitted by ~~all~~ new Dischargers.)

Provide an evaluation of disposal/reclamation options and justification for selecting a surface water disposal alternative. If no alternative disposal options are viable, explain why (attach additional sheets as necessary). If alternative disposal options are feasible, contact the Central Valley Water Board. If the answer to any of the following questions is "Yes", then surface water disposal is not an option. THIS ORDER DOES NOT APPLY IF THERE IS NO DISCHARGE TO SURFACE WATERS.			
Is discharge to the local municipal wastewater treatment plant a viable option?	☐Yes	☐No	Provide proof that discharge to the local municipal wastewater treatment plant is not viable or explain why it is infeasible to connect to the wastewater treatment plant. The Discharger may submit any denial or restrictive flow letter from the wastewater treatment plant as proof that this is not a viable option.
Is land disposal a viable option?	☐Yes	☐No	Provide an explanation why ponds, infiltration basins, spray disposal areas, and/or subsurface infiltration are not viable options.
Is underground injection a viable option?	☐Yes	☐No	Provide an explanation

6. Wastewater Sampling and Analysis Requirements (To be submitted by all Dischargers.)

☐ Provide the results of analysis of the wastewater~~, prior to any treatment,~~ for the applicable pollutants specified in Table I-1 of Attachment I for the type of wastewater to be discharged

☐ Provide the analytical data from the laboratory.

☐ Provide a summary of the screening results after comparison of the analytical results to the screening levels in Attachment I.

7. Additional Requirements for Discharges to Impaired Water Bodies (To be submitted if proposed discharge is to impaired water bodies pursuant to CWA section 303(d).)

☐ Provide the results of analysis of the wastewater~~, prior to any treatment~~ for pollutants causing impairment under the current CWA 303(d) List, if proposing to discharge to an impaired surface water. The list of impaired surface waters can be found under the CWA section 303(d) List at the following web site: http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/impaired_waters_list/.

~~**9. Additional Requirements for Discharges of High Salinity Wastewater** (To be submitted if the electrical conductivity of the untreated wastewater is greater than 900 µmhos/cm and the proposed discharge flow is greater than or equal to 0.25 MGD, and continuous discharge duration 180 days or longer.)~~

~~☐ Submittal of a Salinity Evaluation and Minimization Plan, within 60 days of initiating a new discharge under this Order, to ensure adequate measures are developed and implemented by the Discharger to reduce the discharge of salinity and by which the Discharger will minimize any increase in effluent salinity as the result of treatment of the wastewater.~~

10~~1~~. Additional Requirements for Wastewater Requiring Treatment Prior to Discharge (To be submitted by Tier 2 and Tier 3 Dischargers where treatment is required to reduce pollutants to levels that will comply with effluent limitations prior to discharging to surface waters.)

☐ A narrative description of the existing or proposed treatment system, including the technology that will result in the discharge of wastewater that complies with effluent limitations.

☐ Schematics and blueprints of the existing or proposed treatment system signed by a registered engineer.

☐ Analytical results of sampling of the treated effluent for the applicable pollutants specified in Table I-1 of Attachment I for the type of wastewater to be discharged.

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 California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of Order R5-2018-0002, adopted by the California Regional Water Quality Control Board, Central Valley Region, on 1 February 2018.

Original Signed By
PAMELA C. CREEDON, Executive Officer