CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

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ORDER R5-2016-XXXX
NPDES NO. CAG995002

WASTE DISCHARGE REQUIREMENTS
LIMITED THREAT DISCHARGES TO SURFACE WATER

The following Dischargers are subject to waste discharge requirements (WDR's) as set forth in this General Order upon authorization by a Notice of Applicability:

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, pesticides, inorganic constituents, chlorine, and/or other chemical constituents that require treatment prior to discharge. Tier 3: Discharges of wastewater from hard rock mines.

Table 2. Administrative Information

This Order was adopted on:	**13/14 October 2016**
This Order shall become effective on:	**1 February 2017**
This Order shall expire on:	**30 January 2022**
Those enrollees who are covered under this Order at the time of expiration will continue to be covered until coverage becomes effective under a reissued Order.	
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Central Valley Region have classified this discharge as a minor discharge.	

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 **13/14 October 2016**.

_____
PAMELA C. CREEDON, Executive Officer

CONTENTS

I. Discharge Information 4
II. Notification Requirements 5
A. General Order Application - Notice of Intent (NOI) 5
1. Requirements for All Discharges 5
2. Additional Requirements for Specific Discharges 6
B. General Order Coverage 8
1. New Dischargers 8
2. Existing Dischargers 8
3. Changes in Discharge/Coverage 8
4. Termination of Coverage 9
5. General Order Expiration 9
C. Eligibility Criteria 10
1. All Limited Threat Dischargers 10
2. Tier 1 Dischargers 11
3. Tier 2 and Tier 3 Dischargers 11
III. Findings 11
IV. Discharge Prohibitions 13
V. Effluent Limitations 13
A. Water Quality-Based Effluent Limitations 13
1. All Discharges 13
2. Tier 1B, Tier 2, and Tier 3 Discharges 25
3. Tier 2 and Tier 3 Discharges 25
4. Application for Intake Water Credits 25
5. Discharges to Specific Water Bodies 25
B. Technology-Based Effluent Limitations 27
1. BOD, TSS, and Settleable Solids 27
2. Volatile Organic Compounds (VOCs) for Remediation Sites 27
3. Discharges from Hard Rock Mines 28
VI. Land Discharge Specifications - Not Applicable 29
VII. Recycling Specifications - Not Applicable 29
VIII. Receiving Water Limitations 29
A. Surface Water Limitations 29
B. Groundwater Limitations – Not Applicable 31
IX. Provisions 31
A. Standard Provisions 31
B. Monitoring and Reporting Program (MRP) Requirements 34
C. Special Provisions 34
1. Reopener Provisions 34
2. Special Studies, Technical Reports and Additional Monitoring Requirements 34
3. Best Management Practices and Pollution Prevention 36
4. Construction, Operation and Maintenance Specifications – Not Applicable 37
5. Special Provisions for Municipal Facilities (POTW's Only) – Not Applicable 37
6. Other Special Provisions 37
7. Compliance Schedules – Not Applicable 37
X. Compliance Determination 37

TABLES

Table 1. Discharger Information 1
Table 2. Administrative Information 1
Table 3. Eligible Discharges with Applicable Permits..... 4
Table 4. Effluent Limitations for Constituents and Parameters of Concern 14
Table 5. Effluent Limitations for Priority Pollutants..... 14
Table 6A. Cadmium Effluent Limitations..... 18
Table 6B. Chromium III Effluent Limitations..... 19
Table 6C. Copper Effluent Limitations 20
Table 6D. Lead Effluent Limitations..... 21
Table 6E. Nickel Effluent Limitations 22
Table 6F. Silver Effluent Limitations 23
Table 6G. Zinc Effluent Limitations..... 24
Table 7. Effluent Limitations - Discharges to the Sacramento River 25
Table 8A. Effluent Limitations - Discharges to the Sacramento River, Hardness 0 to <40 mg/L 26
Table 8B. Effluent Limitations - Discharges to the Sacramento River, Hardness 40 to <80 mg/L 26
Table 8C. Effluent Limitations - Discharges to the Sacramento River, Hardness ≥ 80 mg/L 26
Table 9. Effluent Limitations - Discharges to the Sacramento River, Pesticides 27
Table 10. Effluent Limitations for BOD, TSS, and Settleable Solids..... 27
Table 11. Volatile Organic Compound Effluent Limitations for Remediation Projects 27
Table 12. Technology-Based Effluent Limitations for Hard Rock Mines..... 28

ATTACHMENTS

Attachment A - Definitions.....A-1
Attachment B - Standard Provisions.....B-1
Attachment C - Monitoring and Reporting Program C-1
Attachment D - Fact Sheet D-1
Attachment E - Request for Termination of Coverage E-1
Attachment F - Required Monitoring for Notice of Applicability F-1
Attachment G - Pollution Prevention and Monitoring and Reporting Plan G-1
Attachment H - Application for Intake Water Credits.....H-1
Attachment I - Screening Levels..... I-1
Attachment J - Notice of Intent J-1

I. DISCHARGE INFORMATION

This Limited Threat General Order applies to individuals, public agencies, private businesses, and other legal entities (hereafter Dischargers) discharging limited threat wastewater to waters of the United States as follows:

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: 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.

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

Table 3, below, lists several types of discharges that are eligible, the volume discharged, the duration of discharge, and 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	Tier 1A	Tier 1B
Construction Dewatering	Y	Tier 1A	Tier 1B
Pump/Well Testing	Y	Tier 1A	Tier 1B
Pipeline/Tank Pressure Testing	Y	Tier 1A	Tier 1B
Pipeline/Tank Flushing or Dewatering	Y	Tier 1A	Tier 1B
Condensate	Y	Tier 1A	Tier 1B
Water Supply System	Y	Tier 1A	Tier 1B
Aggregate Mine	Y	Tier 1A	Tier 1B
Filter Backwash Water	Y	Tier 1A	Tier 1B
Other Wastewater That Meets Effluent Limitations Without Treatment	Y	Tier 1A	Tier 1B

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
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
Hard Rock Mine Wastewater (Excluding Aggregate Mines) With or Without Treatment	N	Tier 3	Tier 3

II. NOTIFICATION REQUIREMENTS

A. General Order Application – Notice of Intent (NOI)

It is the responsibility of the Discharger to obtain coverage under this Limited Threat General Order prior to commencement of any discharge to surface waters. To obtain coverage under this General Order, which also serves as the National Pollutant Discharge Elimination System (NPDES) Permit, the Discharger must submit a complete NOI, as detailed below and in Attachment J.

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 waters;

   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 12 of the Notice of Intent, Attachment J).

2. Additional Requirements for Specific Discharges. The Discharger must complete all sections that apply to the proposed discharge and submit with the NOI unless specified otherwise below.

a. Discharges to Impaired Water Bodies. 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

Additional requirements for discharges to impaired water bodies pursuant to CWA section 303(d):

i. Analytical results of sampling of the proposed receiving water and proposed discharge for pollutants causing impairment under CWA section 303(d) List, if applicable.

ii. Demonstration of adequate treatment to ensure compliance at the point of discharge (i.e., end-of-pipe) or application for intake water credits (complete section d or e directly below).

b. Discharges from Drinking Water Supply Systems. The Low Threat General Order and the previous Limited Threat General Order included discharges from drinking water supply systems that are now covered by a new State Board General Order, WQ 2014-0194-DWQ. However, some drinking water supply systems are not covered by WQ 2014-0194-DWQ. Additional requirements for discharges from drinking water supply systems include:

i. The information required in Attachment D, section III.B.2 if applying for an exception to priority pollutant criteria and objectives (including monitoring requirements and effluent limitations), as allowed by section 5.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP); and/or

ii. A Pollution Prevention and Monitoring and Reporting Plan (PPMRP), as outlined in Attachment G, if the project includes more than one existing or proposed discharge point.

iii. Upon completion of the discharge, certification is required by a qualified biologist that the beneficial uses of the receiving water have been restored. The certification shall be submitted with the Request for Termination of Coverage, Attachment E.

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.

d. Intake Water Credits. When the intake water is from the same water body as the receiving water body and monitoring data of the source water indicates that the source water is above the screening levels in Attachment I, then the discharge may qualify for intake water credits granted in accordance with section 1.4.4 of the SIP. The Executive Officer of the Central Valley Water Board will decide whether to authorize the intake water credit on a pollutant-by-pollutant and discharge-by-discharge basis. The Executive Officer will base the decision on the monitoring data included with the NOI and other information submitted by the Discharger, and the requirements specified in the SIP, section 1.4.4, and listed in Attachment D, section III.B.4. Additional requirements for application for intake water credits include:

i. A written request for an intake water credit on a pollutant-by-pollutant basis (Attachment H). The written request must be prepared in accordance with the NOI requirements specified in Attachment J.

ii. Analytical results of sampling of the intake water for the pollutants for which intake water credits are requested.

e. Wastewater that Requires Treatment Prior to Discharge. Additional requirements for Tier 2 and Tier 3 Discharges where treatment is required to reduce pollutants to levels that will meet the effluent limitations prior to discharging to surface waters:

i. 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. The treatment methods proposed by the Discharger must use common, already well-studied, well-tested, and well-used technologies, previously demonstrated and acknowledged to perform as expected and as stated.

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

B. General Order Coverage

1. New Discharges

Upon receipt of the complete Notice of Intent, the Executive Officer shall determine the applicability of the proposed discharge to this General Order. If the discharge is deemed eligible for coverage under this General Order, the Executive Officer will issue a Notice of Applicability to the Discharger. The Notice of Applicability will specify that the discharge is authorized under the terms and conditions of this General Order and will prescribe effluent limitations and include a monitoring and reporting program. New discharges that are not covered by an existing individual or general NPDES permit may not commence discharging until issuance of a Notice of Applicability. If the discharge is not eligible for coverage under this General Order, the Executive Officer will notify the Discharger in writing with instructions on how to proceed.

New analytical results must be submitted every 5 years from the date of the NOA, for the pollutants specified in Table I-1 of Attachment I for the type of wastewater discharged.

This General Order shall apply to the individuals, public agencies, private businesses, and other legal entities that have submitted a complete NOI and have received a Notice of Applicability from the Executive Officer.

2. Existing Discharges

Current enrollees authorized to discharge under the existing Limited Threat General Order R5-2013-0073-01 (NPDES Permit No. CAG995002) are automatically authorized under this General Order to continue discharging. However to maintain general order coverage, the current enrollees must submit a complete Notice of Intent (NOI), as described in sections II.A.1.a through h, above, and in Attachment J, within 90 days of the adoption date of this Order, to adequately characterize the discharge for coverage under this Order.

New analytical results must be submitted every 5 years, for the pollutants specified in Table I-1 of Attachment I for the type of wastewater discharged. Those dischargers that have not submitted the suite of analytical results specified in Table I-1 of Attachment I in five years or more must submit the data within 180 days of adoption of this Order.

Upon submittal of an acceptable NOI, the Executive Officer will issue a revised Notice of Applicability to existing enrollees that coverage under the General Order will continue, specifying any new and continuing effluent limitations and a monitoring and reporting program. Failure to submit a new and acceptable NOI, as described above, may result in termination of coverage.

3. Changes in Discharge/Coverage

Eligible changes to the wastewater flow rate, characteristics, and/or treatment system can be covered by revisions to the Notice of Applicability by the Executive Officer.

a. Notify the Executive Officer 60 days prior to planned or expected changes to the wastewater and/or to the treatment system.

b. Notify the Executive Officer within 60 days after receipt of laboratory results indicating unplanned or unexpected changes to wastewater.

Upon receipt of notification from the Discharger regarding changes to the discharge (e.g. submittal of a modified NOI to the Executive Officer), including applicable laboratory analyses, the Executive Officer may issue a revised Notice of Applicability for discharges that continue to qualify for this Order. Revisions to the NOA may include new effluent limitations, removal of effluent limitations, changes to discharge flow rates, and addition or removal of discharge locations. Discharges may continue during this process. When notified by the Executive Officer that an antidegradation analysis is necessary and/or a discharge no longer qualifies for this Order, the Discharger must immediately apply for an individual NPDES permit. See the Fact Sheet for further discussion of anti-backsliding and antidegradation issues.

4. Termination of Discharge/Coverage

Upon cessation of the discharge, the Discharger shall request, using the Request for Termination of Coverage in Attachment E, official termination of coverage under this General Order from the Executive Officer. The Discharger is subject to the terms and conditions of this General Order and is responsible for submitting the annual fee and monitoring reports associated with this General Order until the Discharger receives a Notice of Termination (NOT) from the Executive Officer. Upon receipt of the NOT, the Discharger will no longer be authorized to discharge wastewater covered by this General Order. Failure to submit the annual fee and monitoring reports may subject the Discharger to mandatory minimum penalties or discretionary penalties.

a. When the Central Valley Water Board issues an individual NPDES permit or Waste Discharge Requirements (WDR's) with more specific requirements to a Discharger,

the applicability of this General Order to that Discharger is automatically terminated on the effective date of the individual permit or WDR's.

b. Dischargers with drinking water supply systems authorized to discharge under this General Order who have been granted an exception to the priority pollutant criteria and objectives in the California Toxics Rule (CTR) and SIP, as allowed by section 5.3 of the SIP, must provide certification by a qualified biologist that the beneficial uses of the receiving water have been restored upon completion of the discharge. The certification must be submitted with the Request for Termination of Coverage, Attachment E.

5. Expiration of General Order

This General Order will expire 5 years after the effective date (30 January 2022), as specified on the cover page of this General Order. In accordance with 40 C.F.R. section 122.6, if the permit is not reissued by the expiration date, the conditions of this General Order will continue in force and effect until a new General Order is issued.

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 <u>will not be required</u> 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 <u>will be required</u> for the discharge.

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

g. The discharged wastewater does not cause acute or chronic toxicity in the receiving water;

h. Except for any pollutant eligible for an intake water credit, pollutant concentrations in the discharge do not cause, have a reasonable potential to cause, or contribute to

an excursion above any applicable federal water quality criterion established by U.S. EPA pursuant to CWA section 303;

i. Except for any pollutant eligible for an intake water credit, pollutant concentrations in the discharge, do not cause, have a reasonable potential to cause, or contribute to an excursion above any water quality objective adopted by the Central Valley Water Board or State Water Resources Control Board (State Water Board), including prohibitions of discharge for the receiving waters;

j. The effluent discharge meets the Effluent Limitations in this Order as specified in the NOA if the discharge does not qualify for intake water credit.

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 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 $\geq$ 0.25 MGD and/or the discharge is greater than 4 months in duration (or as determined by the Executive Officer in the NOA).

3. Tier 2 and Tier 3 Discharges.

To be authorized as a Tier 2 or Tier 3 discharge under this General Order, treatment is required, and the Discharger must demonstrate that the discharge or proposed discharge meets the criteria in section II.C.1 above and the following criteria:

a. A representative sample of the discharge, has been analyzed for the constituents with effluent limitations specified in the NOA; and

b. The concentrations of constituents in the discharge, do not exceed the Effluent Limitations listed in section V of this Order, as specified in the NOA.

III. FINDINGS

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

A. Legal Authorities. This Order serves as WDR's pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260).This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for limited threat point source discharges, as described herein, to surface waters.

40 C.F.R. section 122.28 authorizes U.S. EPA and approved states to issue general permits to regulate a point source category if the sources:

1. Involve the same or substantially similar types of operations;

2. Discharge the same type of waste;

3. Require the same type of effluent limitations or operating conditions;

4. Require similar monitoring; and

5. Are more appropriately regulated under a general permit rather than individual permits.

On 22 September 1989, U.S. EPA granted the State of California, through the State Water Board and the Regional Water Boards, the authority to issue general NPDES permits pursuant to 40 C.F.R. parts 122 and 123.

B. Basin Plans. The Central Valley Water Board adopted a Water Quality Control Plan, Fourth Edition (Revised April 2016), for the Sacramento and San Joaquin River Basins and a Water Quality Control Plan, Second Edition (Revised January 2015 with approved amendments), for the Tulare Lake Basin (hereinafter Basin Plans) that designate beneficial uses, establish water quality objectives, and contain implementation programs and policies to achieve those objectives for all waters addressed through the plans. Requirements in this Order implement the Basin Plans.

C. Background and Rationale for Requirements. The Central Valley Water Board developed the requirements in this Order based on readily available information and permit requirements for several similar dischargers and the requirements contained in Orders R5-2013-0074 and R5-2013-0073-01. The Fact Sheet (Attachment D), which contains additional background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through C and E through J are also incorporated into this Order.

D. Monitoring and Reporting. 40 C.F.R. section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Central Valley Water Board to require technical and monitoring reports. The Monitoring and Reporting Program, as specified in the Notice of Applicability and in Attachment F, establishes monitoring and reporting requirements to implement federal and State requirements.

The technical and monitoring reports in this Order are required in accordance with Water Code section 13267, which states the following in subsection (b)(1), *"In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."*

The monitoring reports required by this Order are necessary to determine compliance with this Order. The need for the monitoring reports is discussed in the Fact Sheet (Attachment D).

E. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. section 122.42, are provided in Attachment B. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 C.F.R. section 122.42. The Central Valley Water Board has also included in this Order special provisions applicable to the Dischargers.

The rationale for the special provisions contained in this Order is provided in the Fact Sheet (Attachment D).

F. Notification of Interested Parties for this General Order. The Central Valley Water Board has notified potential and existing Dischargers and interested agencies and persons of its intent to prescribe WDR's for limited threat waste discharges and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet (Attachment D).

G. Consideration of Public Comment for this General Order. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to limited threat wastewater discharges to surface water or surface water drainage courses. Details of the Public Hearing are provided in the Fact Sheet (Attachment D).

H. Notification of Interested Parties for Individual NOAs. It is the intent of this General Order that the public comment period for this General Order shall be adequate for the enrollees under this Order. However, there may be individual discharges that, due to the threat to water quality, complexity of the discharge, and/or extent of public concern, require a public comment period and Board hearing, which will be determined at the discretion of the Executive Officer. Details of the notification will be provided in the NOA for the project.

I. Consideration of Public Comment for Individual NOAs. For those NOAs that require a public comment period and Board hearing at the discretion of the Executive Officer, the Central Valley Water Board, in a public meeting, will hear and consider all comments pertaining to individual limited threat wastewater discharges to surface water or surface water drainage courses. Details of the Public Hearing will be provided in the NOA for the project.

THEREFORE, IT IS HEREBY ORDERED that Limited Threat General Order R5-2013-0073-01 (Waste Discharge Requirements for Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water), is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this General Order. This action in no way prevents the Central Valley Water Board from taking enforcement action for past violations of the previous Orders.

IV. DISCHARGE PROHIBITIONS

A. The discharge of wastes, other than those described in section I and meeting the eligibility criteria in sections II.C.1, II.C.2, and II.C.3 of this General Order, is prohibited unless the Discharger obtains a waiver, coverage under another general order, or coverage under an individual Order that regulates the discharge of such wastes.

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

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

V. EFFLUENT LIMITATIONS

The Executive Officer shall indicate the applicable Effluent Limitations in the Notice of Applicability (NOA) when a Discharger is enrolled under this General Order. The NOA will contain applicable final effluent limitations for each specific Discharger that shall be based on the effluent limitations shown below in this Order. The discharge shall not exceed the final effluent limitations for the constituents and parameters identified in the NOA from the Executive Officer:

A. Water Quality-Based Effluent Limitations

1. All Discharges - Tier 1A, Tier 1B, Tier 2, and Tier 3

a. Flow. The discharge flow rate, discharge duration, and/or total volume of discharge shall not exceed the limitations specified in the Notice of Applicability.

b. pH.

i. The pH of all discharges within the Sacramento and San Joaquin River Basins (except Goose Lake in Modoc County) shall at all times be within the range of 6.5 and 8.5.

ii. The pH of all discharges to Goose Lake in Modoc County shall at all times be within the range of 7.5 and 9.5.

iii. The pH of all discharges within the Tulare Lake Basin shall at all times be within the range of 6.5 and 8.3.

c. Pesticides.

i. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the discharge at concentrations detectable within the accuracy of analytical methods approved by USEPA or the Executive Officer for the Sacramento and San Joaquin River Basins or prescribed in Standard Methods for the Examination of Water and Wastewater, 18th Edition, or other equivalent methods approved by the Executive Officer for the Tulare Lake Basin.

ii. Thiobencarb shall not be discharged in excess of 1.0 µg/L for the Sacramento and San Joaquin River Basins.

iii. For other pesticides not listed here, see the Pesticide Water Quality Objective in the Basin Plans.

d. 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), chloride, and/or boron.

e. Constituents and Parameters of Concern. The constituents and parameters, subject to effluent limitations as identified in the Notice of Applicability (NOA) from the Executive Officer, shall not exceed the effluent limitations in Table 4 below:

Table 4. Effluent Limitations for Constituents and Parameters of Concern

Parameter	Units	Effluent Limitations			
		MUN [1]		No MUN [1]	
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily
Aluminum, Total Recoverable	µg/L	310	620	374	750
Iron, Total Recoverable	µg/L	470	930	--	--
Manganese, Total Recoverable	µg/L	80	160	--	--
Nitrate Nitrogen, Total (as N)	mg/L	10	20	--	--
Nitrite (as N)	mg/L	1	2	--	--
Total Residual Chlorine	mg/L	0.01	0.02	0.01	0.02

[1] MUN = Municipal and Domestic Supply Beneficial Use

f. Effluent Limitations for Priority Pollutants. The priority pollutants, subject to effluent limitations as identified in the Notice of Applicability from the Executive Officer, shall not exceed the effluent limitations in Table 5 below:

Table 5. Effluent Limitations for Priority Pollutants

CTR #	Parameter	Units	Effluent Limitations			
			MUN [1]		No MUN [1]	
			AMEL [2]	MDEL [3]	AMEL [2]	MDEL [3]
1	Antimony, Total Recoverable	µg/L	6	12	4300	8600
2	Arsenic, Total Recoverable	µg/L	10	20	120	250
3	Beryllium, Total Recoverable	µg/L	4	8	--	--
4	Cadmium, Total Recoverable	µg/L	[4]	[4]	[4]	[4]
5a	Chromium (III)	µg/L	[4]	[4]	[4]	[4]
5b	Chromium (VI)	µg/L	8	16	8	16
6	Copper, Total Recoverable	µg/L	[4]	[4]	[4]	[4]
7	Lead, Total Recoverable	µg/L	[4]	[4]	[4]	[4]
8	Mercury, Total Recoverable	µg/L	0.05	0.10	0.05	0.10
9	Nickel, Total Recoverable	µg/L	[4]	[4]	[4]	[4]
10	Selenium, Total Recoverable	µg/L	4.1	8.2	4.1	8.2
11	Silver, Total Recoverable	µg/L	[4]	[4]	[4]	[4]
12	Thallium, Total Recoverable	µg/L	1.7	3.4	6.3	13
13	Zinc, Total Recoverable	µg/L	[4]	[4]	[4]	[4]
14	Cyanide, Total (as CN)	µg/L	4.3	8.5	4.3	8.5
15	Asbestos	MFL	7	14	--	--
16	2,3,7,8-TCDD	µg/L	1.3E-08	2.6E-08	--	--
17	Acrolein	µg/L	320	642	--	--
18	Acrylonitrile	µg/L	0.059	0.118	0.118	0.237
19	Benzene	µg/L	1	2	71	142
20	Bromoform	µg/L	4.3	8.6	360	720
21	Carbon Tetrachloride	µg/L	0.25	0.50	4.4	8.8
22	Chlorobenzene	µg/L	70	140	--	--
23	Chlorodibromomethane	µg/L	0.401	0.804	34	68
24	Chloroethane	µg/L	--	--	--	--
25	2-Chloroethylvinyl Ether	µg/L	--	--	--	--
26	Chloroform	µg/L	80	161	1015	2037
27	Dichlorobromomethane	µg/L	0.56	1.12	46	943
28	1,1-Dichloroethane	µg/L	5	10	--	--
29	1,2-Dichloroethane	µg/L	0.38	0.76	--	--
30	1,1-Dichloroethylene	µg/L	0.057	0.114	--	--
31	1,2-Dichloropropane	µg/L	0.52	1.04	--	--
32	1,3-Dichloropropylene	µg/L	0.5	1.0	--	--
33	Ethylbenzene	µg/L	300	602	--	--
34	Methyl Bromide	µg/L	48	96	--	--
35	Methyl Chloride	µg/L	--	--	--	--
36	Methylene Chloride	µg/L	4.7	9.4	--	--
37	1,1,2,2-Tetrachloroethane	µg/L	0.17	0.34	--	--
38	Tetrachloroethylene	µg/L	0.8	1.6	--	--
39	Toluene	µg/L	150	301	--	--
40	1,2-Trans-Dichloroethylene	µg/L	10	20	--	--
41	1,1,1-Trichloroethane	µg/L	200	401	--	--
42	1,1,2-Trichloroethane	µg/L	0.60	1.20	--	--
43	Trichloroethylene	µg/L	2.7	5.4	--	--

CTR #	Parameter	Units	Effluent Limitations			
			MUN [1]		No MUN [1]	
			AMEL [2]	MDEL [3]	AMEL [2]	MDEL [3]
44	Vinyl Chloride	µg/L	0.5	1.0	--	--
45	2-Chlorophenol	µg/L	120	241	--	--
46	2,4-Dichlorophenol	µg/L	93	187	--	--
47	2,4-Dimethylphenol	µg/L	540	1,083	2300	4600
48	2-Methyl-4,6-Dinitrophenol	µg/L	13.4	26.9	115	230
49	2,4-Dinitrophenol	µg/L	70	140	115	230
50	2-Nitrophenol	µg/L	--	--	--	--
51	4-Nitrophenol	µg/L	--	--	--	--
52	3-Methyl-4-Chlorophenol	µg/L	--	--	--	--
53	Pentachlorophenol	µg/L	0.28	0.56	8.2	16.4
54	Phenol	µg/L	21000	42130	--	--
55	2,4,6-Trichlorophenol	µg/L	2.1	4.2	6.5	13
56	Acenaphthene	µg/L	1200	2407	--	--
57	Acenaphthylene	µg/L	--	--	--	--
58	Anthracene	µg/L	9,600	19,259	110000	220000
59	Benzidine	µg/L	0.00012	0.00024	0.00054	0.0011
60	Benzo(a)Anthracene	µg/L	0.0044	0.0088	0.049	0.098
61	Benzo(a)Pyrene	µg/L	0.0044	0.0088	0.049	0.098
62	Benzo(b)Fluoranthene	µg/L	0.0044	0.0088	0.049	0.098
63	Benzo(ghi)Perylene	µg/L	--	--	--	--
64	Benzo(k)Fluoranthene	µg/L	0.0044	0.0088	0.049	0.098
65	Bis(2-Chloroethoxy)Methane	µg/L	--	--	--	--
66	Bis(2-Chloroethyl)Ether	µg/L	0.031	0.062	1.4	2.8
67	Bis(2-Chloroisopropyl)Ether	µg/L	1400	2809	170000	340000
68	Bis(2-Ethylhexyl)Phthalate	µg/L	1.8	3.6	5.9	11.8
69	4-Bromphenyl Phenyl Ether	µg/L	--	--	--	--
70	Butylbenzyl Phthalate	µg/L	3000	6019	5200	10400
71	2-Chloronaphthalene	µg/L	1700	3411	4300	8600
72	4-Chlorophenyl Phenyl Ether	µg/L	--	--	--	--
73	Chrysene	µg/L	0.0044	0.0088	0.049	0.098
74	Dibenzo(a,h)Anthracene	µg/L	0.0044	0.0088	0.049	0.098
75	1,2-Dichlorobenzene	µg/L	600	1,204	--	--
76	1,3-Dichlorobenzene	µg/L	400	802	--	--
77	1,4-Dichlorobenzene	µg/L	5	10	--	2600 [6]
78	3,3 Dichlorobenzidine	µg/L	0.04	0.08	0.077	0.154
79	Diethyl Phthalate	µg/L	23000	46142	120000	240000
80	Dimethyl Phthalate	µg/L	313000	627937	2900000	5800000
81	Di-n-Butyl Phthalate	µg/L	2700	5417	12000	24000
82	2,4-Dinitrotoluene	µg/L	0.11	0.22	9.1	18.2
83	2,6-Dinitrotoluene	µg/L	--	--	--	--
84	Di-n-Octyl Phthalate	µg/L	--	--	--	--
85	1,2-Diphenylhydrazine	µg/L	0.040	0.080	0.54	1.08
86	Fluoranthene	µg/L	300	602	370	742
87	Fluorene	µg/L	1300	2608	14000	28000
88	Hexachlorobenzene	µg/L	0.00075	0.00150	0.00077	0.0015
89	Hexachlorobutadiene	µg/L	0.44	0.88	--	50 [6]
90	Hexachlorocyclopentadiene	µg/L	50	100	--	--
91	Hexachloroethane	µg/L	1.9	3.8	8.9	17.8
92	Indeno(1,2,3-cd)Pyrene	µg/L	0.0044	0.0088	0.049	0.098
93	Isophorone	µg/L	8.4	16.9	600	1200

CTR #	Parameter	Units	Effluent Limitations			
			MUN [1]		No MUN [1]	
			AMEL [2]	MDEL [3]	AMEL [2]	MDEL [3]
94	Naphthalene	µg/L	--	--	--	--
95	Nitrobenzene	µg/L	17	34	1900	3800
96	N-Nitrosodimethylamine	µg/L	0.00069	0.00138	8.1	16.2
97	N-Nitrosodi-n-Propylamine	µg/L	0.005	0.010	1.4	2.8
98	N-Nitrosodiphenylamine	µg/L	5.0	10.0	16	32
99	Phenanthrene	µg/L	--	--	--	--
100	Pyrene	µg/L	960	1926	11000	22000
101	1,2,4-Trichlorobenzene	µg/L	5	10	--	--
102	Aldrin	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
103	alpha-BHC	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
104	beta-BHC	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
105	gamma-BHC (Lindane)	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
106	delta-BHC	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
107	Chlordane	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
108	4,4'-DDT	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
109	4,4'-DDE (linked to DDT)	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
110	4,4'-DDD	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
111	Dieldrin	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
112	alpha-Endosulfan	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
113	beta-Endolsulfan	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
114	Endosulfan Sulfate	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
115	Endrin	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
116	Endrin Aldehyde	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
117	Heptachlor	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
118	Heptachlor Epoxide	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
119-125	PCBs sum [5]	µg/L	ND [7]	ND [7]	ND [7]	ND [7]
126	Toxaphene	µg/L	ND [7]	ND [7]	ND [7]	ND [7]

[1] MUN = Municipal and Domestic Supply Beneficial Use
[2] AMEL = Average Monthly Effluent Limitation
[3] MDEL = Maximum Daily Effluent Limitation
[4] See Tables 6A through 6G below for effluent limitations for the hardness-dependent metals; cadmium, chromium III, copper, lead, nickel, silver, and zinc.
[5] This effluent limitation applies to the sum of PCB aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260;
[6] CTR Human Health Criterion, fish consumption only;
[7] The non-detectable (ND) limitation applies to each individual pesticide. No individual pesticide may be present in the discharge at detectable concentrations. The Discharger shall use USEPA standard analytical techniques with a maximum acceptable detection level of 0.5 µg/L (SIP minimum level).

g. Effluent Limitations for Hardness-Dependent Metals. The priority pollutants, subject to effluent limitations as identified in the Notice of Applicability from the Executive Officer, shall not exceed the respective effluent limitations contained in Tables 6A through 6G, below for cadmium, chromium III, copper, lead, nickel, silver, and zinc. In this General Order, effluent limitations for cadmium, chromium (III), copper, lead, nickel, silver, and zinc are based on a range of hardness concentrations, with the middle value selected. The statistical parameter, Coefficient of Variation (CV) is used to calculate the effluent limitations for the hardness-dependent metals. A CV of 0.6 will be used by the Central Valley Water Board to calculate effluent limitations for hardness-dependent metals.

Table 6A. Cadmium Effluent Limitations

Hardness in mg/L (H)	Effluent Limitations for Cadmium (µg/L) (Total Recoverable and CV=0.6)	
	Average Monthly	**Maximum Daily**
H < 5	0.080	0.15
5 ≤ H < 10	0.12	0.24
10 ≤ H < 15	0.22	0.43
15 ≤ H < 20	0.32	0.63
20 ≤ H < 25	0.42	0.84
25 ≤ H < 30	0.52	1.1
30 ≤ H < 35	0.63	1.3
35 ≤ H < 40	0.74	1.5
40 ≤ H < 45	0.86	1.7
45 ≤ H < 50	0.97	2.0
50 ≤ H < 55	1.1	2.2
55 ≤ H < 60	1.2	2.4
60 ≤ H < 65	1.3	2.7
65 ≤ H < 70	1.4	2.9
70 ≤ H < 75	1.6	3.1
75 ≤ H < 80	1.7	3.3
80 ≤ H < 90	1.8	3.6
90 ≤ H < 100	1.9	3.9
100 ≤ H < 110	2.1	4.2
110 ≤ H < 120	2.2	4.5
120 ≤ H < 130	2.4	4.8
130 ≤ H < 140	2.6	5.1
140 ≤ H < 150	2.7	5.4
150 ≤ H < 200	3.1	6.3
200 ≤ H < 250	3.8	7.6
250 ≤ H < 300	4.5	8.9
300 ≤ H < 350	5.1	10
350 ≤ H < 400	5.7	11
H ≥ 400	6.0	12

Table 6B. Chromium III Effluent Limitations

Hardness in mg/L (H)	Effluent Limitations for Chromium III (µg/L) (CV=0.6)	
	Average Monthly	Maximum Daily
H < 5	15	30
5 ≤ H < 10	20	41
10 ≤ H < 15	31	62
15 ≤ H < 20	41	82
20 ≤ H < 25	49	99
25 ≤ H < 30	57	110
30 ≤ H < 35	66	130
35 ≤ H < 40	74	150
40 ≤ H < 45	82	160
45 ≤ H < 50	90	180
50 ≤ H < 55	98	200
55 ≤ H < 60	110	210
60 ≤ H < 65	110	230
65 ≤ H < 70	120	250
70 ≤ H < 75	130	260
75 ≤ H < 80	140	280
80 ≤ H < 90	150	300
90 ≤ H < 100	160	330
100 ≤ H < 110	180	360
110 ≤ H < 120	190	380
120 ≤ H < 130	200	410
130 ≤ H < 140	210	430
140 ≤ H < 150	230	460
150 ≤ H < 200	270	540
200 ≤ H < 250	330	660
250 ≤ H < 300	380	770
300 ≤ H < 350	440	890
350 ≤ H < 400	500	1000
H ≥ 400	520	1100

Table 6C. Copper Effluent Limitations

Hardness in mg/L (H)	Effluent Limitations for Copper (µg/L) (Total Recoverable and CV=0.6)	
	Average Monthly	Maximum Daily
H < 5	0.41	0.83
5 ≤ H < 10	0.61	1.2
10 ≤ H < 15	0.98	2.0
15 ≤ H < 20	1.4	2.7
20 ≤ H < 25	1.7	3.4
25 ≤ H < 30	2.1	4.1
30 ≤ H < 35	2.4	4.9
35 ≤ H < 40	2.8	5.6
40 ≤ H < 45	3.1	6.3
45 ≤ H < 50	3.5	6.9
50 ≤ H < 55	3.8	7.6
55 ≤ H < 60	4.1	8.3
60 ≤ H < 65	4.5	9.0
65 ≤ H < 70	4.8	9.7
70 ≤ H < 75	5.2	10
75 ≤ H < 80	5.5	11
80 ≤ H < 90	6.0	12
90 ≤ H < 100	6.6	13
100 ≤ H < 110	7.3	15
110 ≤ H < 120	8.0	16
120 ≤ H < 130	8.6	17
130 ≤ H < 140	9.3	19
140 ≤ H < 150	9.9	20
150 ≤ H < 200	12	24
200 ≤ H < 250	15	30
250 ≤ H < 300	18	36
300 ≤ H < 350	21	42
350 ≤ H < 400	24	47
H ≥ 400	25	50

Table 6D. Lead Effluent Limitations

Hardness in mg/L (H)	Effluent Limitations for Lead (µg/L) (Total Recoverable and CV=0.6)	
	Average Monthly	**Maximum Daily**
H < 5	0.057	0.12
5 ≤ H < 10	0.096	0.19
10 ≤ H < 15	0.18	0.37
15 ≤ H < 20	0.28	0.57
20 ≤ H < 25	0.39	0.78
25 ≤ H < 30	0.50	1.0
30 ≤ H < 35	0.62	1.2
35 ≤ H < 40	0.75	1.5
40 ≤ H < 45	0.88	1.8
45 ≤ H < 50	1.0	2.0
50 ≤ H < 55	1.1	2.3
55 ≤ H < 60	1.3	2.6
60 ≤ H < 65	1.4	2.9
65 ≤ H < 70	1.6	3.2
70 ≤ H < 75	1.7	3.5
75 ≤ H < 80	1.9	3.8
80 ≤ H < 90	2.1	4.2
90 ≤ H < 100	2.4	4.9
100 ≤ H < 110	2.8	5.6
110 ≤ H < 120	3.1	6.2
120 ≤ H < 130	3.5	6.9
130 ≤ H < 140	3.8	7.7
140 ≤ H < 150	4.2	8.4
150 ≤ H < 200	5.3	11
200 ≤ H < 250	7.3	15
250 ≤ H < 300	9.4	19
300 ≤ H < 350	12	23
350 ≤ H < 400	14	28
H ≥ 400	15	31

Table 6E. Nickel Effluent Limitations

Hardness in mg/L (H)	Effluent Limitations for Nickel (µg/L) (Total Recoverable and CV=0.6)	
	Average Monthly	Maximum Daily
H < 5	3.4	6.8
5 ≤ H < 10	4.8	9.6
10 ≤ H < 15	7.4	15
15 ≤ H < 20	9.8	20
20 ≤ H < 25	12	24
25 ≤ H < 30	14	29
30 ≤ H < 35	17	33
35 ≤ H < 40	19	37
40 ≤ H < 45	21	42
45 ≤ H < 50	23	46
50 ≤ H < 55	25	50
55 ≤ H < 60	27	54
60 ≤ H < 65	29	58
65 ≤ H < 70	31	61
70 ≤ H < 75	33	65
75 ≤ H < 80	34	69
80 ≤ H < 90	37	75
90 ≤ H < 100	41	82
100 ≤ H < 110	45	89
110 ≤ H < 120	48	96
120 ≤ H < 130	52	100
130 ≤ H < 140	55	110
140 ≤ H < 150	58	120
150 ≤ H < 200	69	140
200 ≤ H < 250	85	170
250 ≤ H < 300	100	200
300 ≤ H < 350	120	230
350 ≤ H < 400	130	260
H ≥ 400	140	280

Table 6F. Silver Effluent Limitations

Hardness in mg/L (H)	Effluent Limitations for Silver (µg/L) (Total Recoverable and CV=0.6)	
	Average Monthly	**Maximum Daily**
H < 5	0.012	0.023
5 ≤ H < 10	0.024	0.047
10 ≤ H < 15	0.057	0.11
15 ≤ H < 20	0.10	0.20
20 ≤ H < 25	0.16	0.31
25 ≤ H < 30	0.22	0.44
30 ≤ H < 35	0.29	0.59
35 ≤ H < 40	0.37	0.75
40 ≤ H < 45	0.46	0.93
45 ≤ H < 50	0.56	1.1
50 ≤ H < 55	0.67	1.3
55 ≤ H < 60	0.78	1.6
60 ≤ H < 65	0.90	1.8
65 ≤ H < 70	1.0	2.1
70 ≤ H < 75	1.2	2.3
75 ≤ H < 80	1.3	2.6
80 ≤ H < 90	1.5	3.1
90 ≤ H < 100	1.9	3.7
100 ≤ H < 110	2.1	4.2
110 ≤ H < 120	2.2	4.5
120 ≤ H < 130	2.4	4.8
130 ≤ H < 140	2.6	5.1
140 ≤ H < 150	2.7	5.4
150 ≤ H < 200	3.1	6.3
200 ≤ H < 250	3.8	7.6
250 ≤ H < 300	4.5	8.9
300 ≤ H < 350	5.1	10
350 ≤ H < 400	5.7	11
H ≥ 400	6.0	12

Table 6G. Zinc Effluent Limitations

Hardness in mg/L (H)	Effluent Limitations for Zinc (µg/L) (Total Recoverable and CV=0.6)	
	Average Monthly	**Maximum Daily**
H < 5	4.7	9.5
5 ≤ H < 10	6.7	13
10 ≤ H < 15	10	21
15 ≤ H < 20	14	27
20 ≤ H < 25	17	34
25 ≤ H < 30	20	40
30 ≤ H < 35	23	46
35 ≤ H < 40	26	52
40 ≤ H < 45	29	58
45 ≤ H < 50	32	64
50 ≤ H < 55	35	69
55 ≤ H < 60	37	75
60 ≤ H < 65	40	80
65 ≤ H < 75	45	90
75 ≤ H < 90	50	100
90 ≤ H < 100	55	110
100 ≤ H < 110	60	120
110 ≤ H < 120	65	130
120 ≤ H < 130	70	140
130 ≤ H < 140	75	150
140 ≤ H < 150	80	160
150 ≤ H < 200	95	190
200 ≤ H < 250	120	240
250 ≤ H < 300	140	280
300 ≤ H < 350	160	330
350 ≤ H < 400	180	370
H ≥ 400	190	390

2. Tier 1B, Tier 2, and Tier 3 Discharges

a. Whole Effluent Toxicity, Chronic. There shall be no chronic toxicity in the discharge. See the Monitoring and Reporting Program (Attachment C) and the Notice of Applicability from the Executive Officer.

3. Tier 2 and Tier 3 Discharges

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

i. 70%, minimum for any one bioassay; and

ii. 90%, median for any three consecutive bioassays.

See the Monitoring and Reporting Program (Attachment C) and the Notice of Applicability from the Executive Officer.

4. Application of Intake Water Credits

For pollutants that have intake water credits granted as part of the NOA, the average pollutant concentration and mass in the effluent shall not exceed the corresponding average concentration and mass as measured in the influent.

For constituents where compliance with an effluent limitation is the measured maximum daily effluent concentration, discharges shall be considered in compliance if the measured maximum daily effluent concentration does not exceed the respective maximum daily intake total recoverable metal concentration (sampled on the same calendar day).

Where a facility uses multiple intake sources, the monthly average influent concentration and mass shall be reported based on the flow-weighted amount from each intake source. It shall be assumed that the pollutant concentration from any water sources other than the receiving water has a pollutant concentration that is no greater than the most stringent applicable water quality objective.

5. Discharges to Specific Waterbodies

a. The discharge of pollutants, subject to effluent limitations as identified in the Notice of Applicability from the Executive Officer, shall not exceed the effluent limitations contained in Table 7 for all limited threat 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. The effluent limitations contained in Table 7 apply in lieu of those contained in Section V.A.1.f and g, above for respective parameters applicable to the discharge.

Table 7. Effluent Limitations – 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

Parameter	Units	Maximum Daily
Arsenic, Total Recoverable	µg/L	10
Copper, Total Recoverable	µg/L	10[1]
Silver, Total Recoverable	µg/L	10
Zinc, Total Recoverable	µg/L	100[1]

[1] Does not apply to Sacramento River above the State Highway 32 Bridge at Hamilton City.

b. The discharge of pollutants subject to effluent limitations, as identified in the Notice of Applicability from the Executive Officer, shall not exceed the effluent limitations contained in Tables 8A, 8B, and 8C for all limited threat discharges to the Sacramento River and its tributaries above the State Highway 32 Bridge at Hamilton City. Effluent limitations contained in Tables 8A, 8B, and 8C for copper, zinc, and cadmium are based on hardness, which shall be provided by the Discharger as part of the application. For waters with hardness concentrations less than 100 mg/L (as $CaCO_3$), effluent limitations have been segmented into 10 mg/L increments. For each segment the central value between the lower and upper bounds was used to determine the corresponding effluent limit. For waters with hardness concentrations greater than or equal to 100 mg/L but less than 200 mg/L, effluent limitations shall be based on a hardness value of 150 mg/L. For waters with hardness concentrations greater than or equal to 200 mg/L, effluent limitations shall be based on a hardness value of 200 mg/L. The effluent limitations contained in Tables 8A, 8B, and 8C apply in lieu of those contained in Section V.A.1.g, above for respective parameters applicable to the discharge.

Table 8A. Effluent Limitations – Discharges to the Sacramento River and Its Tributaries Above the State Highway 32 Bridge at Hamilton City – Hardness 0 to <40 mg/L

Parameter	Units	Hardness in mg/L (H)			
		H <10	10≤ H <20	20≤ H <30	30≤ H <40
		Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily
Cadmium, Total Recoverable	µg/L	0.02	0.07	0.13	0.19
Copper, Total Recoverable	µg/L	0.9	2.3	3.7	5.0
Zinc, Total Recoverable	µg/L	2.8	7.1	11	14

Table 8B. Effluent Limitations – Discharges to the Sacramento River and Its Tributaries Above the State Highway 32 Bridge at Hamilton City – Hardness 40 to <80 mg/L

Parameter	Units	Hardness in mg/L (H)			
		40≤ H <50	50≤ H <60	60≤ H <70	70≤ H <80
		Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily
Cadmium, Total Recoverable	µg/L	0.26	0.32	0.39	0.46
Copper, Total Recoverable	µg/L	6.2	7.5	8.7	9.9
Zinc, Total Recoverable	µg/L	18	21	24	27

Table 8C. Effluent Limitations – Discharges to the Sacramento River and Its Tributaries Above the State Highway 32 Bridge at Hamilton City – Hardness ≥80 mg/L

Parameter	Units	Hardness in mg/L (H)			
		80≤ H <90	90≤ H <100	100≤ H <200	H ≥200
		Maximum Daily	Maximum Daily	Maximum Daily	Maximum Daily
Cadmium, Total Recoverable	µg/L	0.54	0.61	1.0	1.4
Copper, Total Recoverable	µg/L	11	12	19	24
Zinc, Total Recoverable	µg/L	30	33	48	61

c. The discharge of pollutants subject to effluent limitations, as identified in the Notice of Applicability from the Executive Officer, shall not exceed the effluent limitations contained in Table 9 for all limited threat discharges to all waters in the Sacramento and San Joaquin River Basins and waters designated as COLD in the Tulare Lake Basin. The effluent limitations contained in Table 9 apply in lieu of those contained in Section V.A.1.c and f above for respective parameters applicable to the discharge.

Table 9. Effluent Limitations – Discharges to All Waters in the Sacramento and San Joaquin River Basins and Waters Designated as COLD in the Tulare Lake Basin

Parameter	Units	Instantaneous Maximum
Persistent Chlorinated Hydrocarbon Pesticides	µg/L	ND[1]

[1] The non-detectable (ND) limitation applies to each individual pesticide. No individual pesticide may be present in the discharge at detectable concentrations. The Discharger shall use USEPA standard analytical techniques with a maximum acceptable detection level of 0.5 µg/L (SIP minimum level). Persistent chlorinated hydrocarbon pesticides include aldrin, dieldrin, chlordane, endrin, endrin aldehyde, heptachlor, heptachlor epoxide, hexachlorocyclohexane (alpha-BHC, beta-BHC, delta-BHC, and gamma-BHC), endosulfan (alpha and beta), endosulfan sulfate, toxaphene, 4,4'DDD, 4,4'DDE, and 4,4'DDT.

B. Technology-Based Effluent Limitations

1. Tier 1A, Tier 1B, Tier 2, and Tier 3 – All Discharges

a. BOD, TSS, and Settleable Solids. BOD, TSS, and settleable solids in the discharge shall not exceed the effluent limitations in Table 10, below, as identified in the Notice of Applicability from the Executive Officer.

Table 10. Effluent Limitations for BOD, TSS, and Settleable Solids

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	10	20
Total Suspended Solids	mg/L	10	20
Settleable Solids	mL/L	--	0.1

2. Volatile Organic Compounds (VOC's) Applicable to Remediation Sites. In addition to the effluent limitations contained in section V.A.1.f, 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
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
1,2-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

Parameter	Units	Maximum Daily Effluent Limitations
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
Chlorobenzene	µg/L	0.5
Chlorodibromomethane	µg/L	0.5
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
Ethylene dibromide (EDB)	µg/L	0.5
MTBE	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

3. **Discharges from Hard Rock Mines.** In addition to the effluent limitations contained in section V.A.1.b, f, and g, the discharge from mining and milling activities and in mine drainage[1] from 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 Hard Rock Mines

Parameter	Units	Technology Based 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	--	--

[1] Mine drainage is defined at 40 C.F.R. section 440.132(h) as "*any water drained, pumped, or siphoned from a mine*".

Parameter	Units	Technology Based Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
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	--	--

VI. LAND DISCHARGE SPECIFICATIONS – NOT APPLICABLE

VII. RECYCLING SPECIFICATIONS – NOT APPLICABLE

VIII. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plans for the Sacramento and San Joaquin River Basin and the Tulare Lake Basin and are a required part of this General Order. Compliance with any amendment or revision to the water quality objectives contained in the Basin Plans adopted by the Central Valley Water Board subsequent to adoption of this General Order is also required. Any discharge authorized for coverage under this General Order shall not cause the following in the receiving water:

1. **Un-ionized Ammonia.** Un-ionized ammonia to 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.

2. **Bacteria.** The fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, to exceed a geometric mean of 200 MPN/100 mL, nor more than 10 percent of the total number of fecal coliform samples taken during any 30-day period to exceed 400 MPN/100 mL in waterbodies with the beneficial use of water contact recreation.

3. **Biostimulatory Substances.** Water to contain biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.

4. **Chemical Constituents.** Chemical constituents to be present in concentrations that adversely affect beneficial uses.

5. **Color.** Discoloration that causes nuisance or adversely affects beneficial uses.

6. **Dissolved Oxygen:**

   a. For waterbodies outside the Sacramento-San Joaquin Delta and for waterbodies in the Tulare Lake Basin:

   i. The monthly median of the mean daily dissolved oxygen concentration to fall below 85 percent of saturation in the main water mass;

   ii. The 95 percentile dissolved oxygen concentration to fall below 75 percent of saturation; and

   iii. The dissolved oxygen concentration to be reduced below 5.0 mg/L at any time for waterbodies designated as warm freshwater habitat (WARM); or

iv. The dissolved oxygen concentration to be reduced below 7.0 mg/L at any time for waterbodies designated as cold freshwater habitat (COLD) and/or spawning, reproduction, and/or early development (SPWN).

b. Within the legal boundaries of the Sacramento-San Joaquin Delta, the dissolved oxygen concentrations shall not be reduced below:

i. 7.0 mg/L in the Sacramento River (below the I Street Bridge) and in all Delta waters west of the Antioch Bridge;

ii. 6.0 mg/L in the San Joaquin River (between Turner Cut and Stockton, 1 September through 30 November); and

iii. 5.0 mg/L in all other Delta waters except those bodies of water which are constructed for special purposes and from which fish have been excluded or where the fishery is not important as a beneficial use.

7. Floating Material. Floating material to be present in amounts that cause nuisance or adversely affect beneficial uses.

8. Oil and Grease. Oils, greases, waxes, or other materials to be present in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.

9. pH:

a. The pH to be depressed below 6.5 or raised above 8.5 for waterbodies in the Sacramento and San Joaquin River Basins (except Goose Lake in Modoc County).

b. The pH to be depressed below 7.5 nor raised above 9.5 within Goose Lake in Modoc County.

c. The pH to be depressed below 6.5, raised above 8.3, nor changed by more than 0.3 units for waterbodies in the Tulare Lake Basin.

10. Pesticides:

a. Pesticides to be present, individually or in combination, in concentrations that adversely affect beneficial uses;

b. Pesticides to be present in bottom sediments or aquatic life in concentrations that adversely affect beneficial uses;

c. Total identifiable persistent chlorinated hydrocarbon pesticides to be present in the water column at concentrations detectable within the accuracy of analytical methods approved by U.S. EPA or the Executive Officer for waterbodies in the Sacramento and San Joaquin River Basins or prescribed in Standard Methods for the Examination of Water and Wastewater, 18th Edition, or other equivalent methods approved by the Executive Officer for waterbodies in the Tulare Lake Basin designated as cold freshwater habitat (COLD);

d. Pesticide concentrations to exceed those allowable by applicable antidegradation policies (see State Water Board Resolution No. 68-16 and 40 C.F.R. 131.12.) for waterbodies in the Sacramento and San Joaquin River Basins;

e. Pesticide concentrations to exceed the lowest levels technically and economically achievable for waterbodies in the Sacramento and San Joaquin River Basins;

f. Pesticides to be present in concentration in excess of the maximum contaminant levels (MCL's) set forth in CCR, Title 22, division 4, chapter 15 for waterbodies in the Sacramento and San Joaquin River Basins or specified in Table 64444-A

(Organic Chemicals) of section 64444 of Title 22 of the CCR for waterbodies in the Tulare Lake Basin designated as municipal and domestic supply (MUN); nor

g. Thiobencarb to be present in excess of 1.0 µg/L for waterbodies in the Sacramento and San Joaquin River Basins designated as municipal and domestic supply (MUN).

11. Radioactivity:

a. Radionuclides to be present in concentrations that are harmful or deleterious to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

b. Radionuclides to be present in excess of the MCL's specified in Table 64442 of section 64442 and Table 64443 of section 64443 of Title 22 of the California Code of Regulations.

12. Suspended Sediments. The suspended sediment load and suspended sediment discharge rate of surface waters to be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

13. Settleable Substances. Substances to be present in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.

14. Suspended Material. Suspended material to be present in concentrations that cause nuisance or adversely affect beneficial uses.

15. Taste and Odors. Taste- or odor-producing substances to be present in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses or domestic or municipal water supplies.

16. Temperature. The natural temperature to be increased by more than 5°F.

17. Toxicity. Toxic substances to be present, individually or in combination, in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.

18. Turbidity. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

a. For waterbodies in the Sacramento and San Joaquin River Basins, turbidity:

i. Shall not exceed 2 Nephelometric Turbidity Units (NTU) where natural turbidity is less than 1 NTU;

ii. Shall not increase more than 1 NTU where natural turbidity is between 1 and 5 NTUs;

iii. Shall not increase more than 20 percent where natural turbidity is between 5 and 50 NTUs;

iv. Shall not increase more than 10 NTU where natural turbidity is between 50 and 100 NTUs; nor

v. Shall not increase more than 10 percent where natural turbidity is greater than 100 NTUs.

b. For waterbodies in the Tulare Lake Basin, turbidity shall not increase:

i. More than 1 NTU where natural turbidity is between 0 and 5 NTUs.

ii. More than 20 percent where natural turbidity is between 5 and 50 NTUs.

iii. More than 10 NTU where natural turbidity is between 50 and 100 NTUs.

iv. More than 10 percent where natural turbidity is greater than 100 NTUs.

B. Groundwater Limitations – Not Applicable

IX. PROVISIONS

A. Standard Provisions

1. All Dischargers authorized to discharge under this General Order shall comply with all Standard Provisions (federal NPDES standard conditions from 40 C.F.R. part 122) included in Attachment B of this General Order.

2. All Dischargers authorized to discharge under this General Order shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this General Order, the more stringent provision shall apply:

a. After notice and opportunity for a hearing, this General Order may be terminated or modified for cause, including, but not limited to:

i. violation of any term or condition contained in this General Order;

ii. obtaining this General Order by misrepresentation or by failing to disclose fully all relevant facts;

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

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

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

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

All Dischargers authorized to discharge under this General Order shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, even if this General Order has not yet been modified.

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

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

ii. Controls any pollutant limited in this General Order.

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

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

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

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

g. Safeguard to electric power failure:

i. All Dischargers authorized to discharge under Tier 2 and Tier 3, if applicable, of this General Order shall provide safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharge shall comply with the terms and conditions of this General Order.

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

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

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

The technical report shall:

i. Identify the possible sources of spills, leaks, untreated waste by-pass, and contaminated drainage. Loading and storage areas, power outage, waste

treatment unit outage, and failure of process equipment, tanks and pipes should be considered.

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

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

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

i. The Discharger shall submit technical reports as directed by the Executive Officer. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code, sections 6735, 7835, and 7835.1. To demonstrate compliance with Title 16, CCR, sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

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

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

To assume operation under this General Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the General Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Central Valley Water Board and a statement. The statement shall comply with the signatory and certification requirements in the federal Standard Provisions (Attachment B, section V.B) and state that the new owner or operator assumes full responsibility for compliance with this General Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

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

m. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this

General Order, the Discharger shall notify the Central Valley Water Board by telephone within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Central Valley Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

Fresno Office:	(559) 445-5116
Rancho Cordova Office:	(916) 464-3291
Redding Office:	(530) 224-4845

B. Monitoring and Reporting Program (MRP) Requirements

All Dischargers authorized to discharge under this General Order shall comply with the MRP, and future revisions thereto, in Attachment C of this Order and as specified in the Notice of Applicability from the Executive Officer.

C. Special Provisions

1. Reopener Provisions

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

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

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

b. Regional Monitoring Program. The Central Valley Water Board is developing a Regional Monitoring Program for the Sacramento-San Joaquin Delta. This Order may be reopened to modify the monitoring requirements to implement the Regional Monitoring Program.

c. Drinking Water Policy. On 26 July 2013 the Central Valley Water Board adopted Resolution No. R5-2013-0098 amending the Basin Plan and establishing a Drinking Water Policy. The State Water Board approved the Drinking Water Policy on 3 December 2013. This Order may be reopened to incorporate monitoring of drinking water constituents to implement the Drinking Water Policy.

d. Total Residual Chlorine. If a state-wide policy for total residual chlorine is adopted during the term of this General Order, this General Order may be reopened to include a revised reporting level (RL) to determine compliance with effluent limitations for total residual chlorine discharges consistent with the state-wide policy.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Evaluation Requirements. For compliance with the Basin Plan's narrative toxicity objective, this General Order requires all Dischargers of Tier 2 and Tier 3 discharges to conduct chronic whole effluent toxicity (WET) testing, as specified in the MRP (Attachment C, section V). Furthermore, this Provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge exceeds the numeric toxicity monitoring

trigger during accelerated monitoring established in this Provision, the Discharger may be required to submit a report of waste discharge for application for an individual NPDES permit. This Provision includes procedures for accelerated chronic toxicity monitoring.

i. **Numeric Toxicity Monitoring Trigger.** The numeric toxicity monitoring trigger to initiate accelerated monitoring is >1 TUc, or as specified in the NOA by the Executive Officer (where TUc = 100/NOEC). The monitoring trigger is not an effluent limitation; it is the toxicity threshold at which the Discharger is required to begin accelerated monitoring.

ii. **Accelerated Monitoring Specifications.** If the numeric toxicity monitoring trigger is exceeded during regular chronic toxicity testing and the Discharger has 60 or more days remaining prior to termination of the project, the Discharger shall initiate accelerated monitoring within 14-days of notification by the laboratory of the exceedance. Accelerated monitoring shall consist of four chronic toxicity tests conducted once every two weeks using the species that exhibited toxicity. The following protocol shall be used for accelerated monitoring:

(a) If the results of four consecutive accelerated monitoring tests do not exceed the monitoring trigger, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring. However, notwithstanding the accelerated monitoring results, if there is adequate evidence of a pattern of effluent toxicity, the Executive Officer may require that the Discharger cease discharging to surface water under this General Order and require submittal of a report of waste discharge for application for an individual NPDES permit in order to continue discharging to surface water.

(b) If the source(s) of the toxicity is easily identified (e.g., temporary plant upset), the Discharger shall make necessary corrections to the facility and shall continue accelerated monitoring until four consecutive accelerated tests do not exceed the monitoring trigger. Upon confirmation that the effluent toxicity has been removed, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring.

(c) If the result of any accelerated toxicity test exceeds the monitoring trigger, the discharge may no longer be eligible for coverage under this Order. To continue coverage under this Order the discharger must demonstrate to the satisfaction of the Executive Officer that the discharge is not causing chronic toxicity in the receiving water. Otherwise, in order to continue discharging to surface water the discharger must submit a report of waste discharge for application for an individual NPDES permit. The discharge to surface water shall not continue until the Executive Officer authorizes continued coverage under this General Order or until the Central Valley Water Board adopts an individual NPDES permit for the discharge.

b. Closure Certification for Discharges from Drinking Water Supply Systems. If a drinking water supply system Discharger received an exception as allowed by section 5.3 of the SIP, then upon termination of the discharge, certification is required by a qualified biologist that the beneficial uses of the receiving water have been restored. The Closure Certification is to be submitted with the request for termination of coverage (Attachment E).

3. Best Management Practices and Pollution Prevention

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. 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.

b. Pollution Prevention and Monitoring and Reporting Plan (PPMRP). Water suppliers enrolling under this General Order that have or propose to have multiple discharge points shall prepare and implement a PPMRP in lieu of the specific Effluent Monitoring Requirements and Receiving Water Monitoring Requirements contained in sections IV and VIII of the Monitoring and Reporting Program (Attachment C). The PPMRP must be submitted with the Notice of Intent and is subject to approval by the Executive Officer. The PPMRP shall include, at a minimum, the elements identified in Attachment G and shall be prepared and implemented in accordance with the General Monitoring Provisions, Other Monitoring Requirements, and Reporting Requirements contained in sections I, IX, and X, respectively, of the Monitoring and Reporting Program (Attachment C).

c. Salinity. Each Discharger authorized under this General Order shall use practices to minimize discharges of salinity. All Dischargers with 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.

4. Construction, Operation and Maintenance Specifications – Not Applicable

5. Special Provisions for Municipal Facilities (POTW's Only) – Not Applicable

6. Other Special Provisions

a. Collected screenings and other solids removed from liquid wastes shall be disposed of in a manner that is consistent with Chapter 15, Division 3, Title 23 of the CCR and approved by the Executive Officer.

Any proposed change in solids use or disposal practice shall be reported to the Executive Officer and U.S. EPA Regional Administrator at least 90 days in advance of the change.

7. Compliance Schedules – Not Applicable

X. COMPLIANCE DETERMINATION

A. Instantaneous Maximum Effluent Limitation for Persistent Chlorinated Hydrocarbon Pesticides (Sections V.A.1.c and V.A.1.f). The non-detectable (ND) instantaneous maximum effluent limitation for persistent chlorinated hydrocarbon pesticides applies to each individual pesticide. No individual pesticide may be present in the discharge at detectable concentrations. The Discharger shall use U.S. EPA standard analytical techniques for analyzing persistent chlorinated hydrocarbon pesticides with a maximum RL not to exceed the minimum levels (ML's) listed in Appendix 4 of the SIP (Table 2d). If the analytical result of a single effluent grab sample is detected for any persistent chlorinated hydrocarbon pesticide and the result is greater than or equal to the applicable ML listed in Appendix 4 of the SIP, a violation will be flagged and the Discharger will be considered out of compliance for that single sample.

B. Aluminum Effluent Limitations (Section V.A.1.e). Compliance with the final effluent limitations for aluminum can be demonstrated using either total or acid-soluble (inductively coupled plasma/atomic emission spectrometry or inductively coupled plasma/mass spectrometry) analysis methods, as supported by U.S. EPA's *Ambient Water Quality Criteria for Aluminum* document (EPA 440/5-86-008), or other standard methods that exclude aluminum silicate particles as approved by the Executive Officer.

C. Total Residual Chlorine Effluent Limitations (Table 4, Section V.A.1.e). Monitoring for chlorine residual or for dechlorination agent residual in the effluent are appropriate methods for compliance determination. A positive residual dechlorination agent in the effluent indicates that chlorine is not present in the discharge, which demonstrates compliance with the effluent limitations. This type of monitoring can also be used to prove that some chlorine residual exceedances are false positives. For Dischargers that dechlorinate, field monitoring data showing either a positive dechlorination agent residual or a chlorine residual at or below the prescribed limit are sufficient to show compliance with the total residual chlorine effluent limitations, as long as the instruments are maintained and calibrated in accordance with the manufacturer's recommendations.

Any excursion above the 1-hour average or 4-day average total residual chlorine effluent limitations and greater than or equal to an RL of 0.08 mg/L or a future RL included in a state-wide policy adopted by the State Water Board is a violation.

If the Discharger conducts continuous monitoring and the Discharger can demonstrate, through data collected from a back-up monitoring system, that a chlorine spike recorded by the continuous monitor was not actually due to chlorine, then any excursion resulting from the recorded spike will not be considered an exceedance, but rather reported as a false positive. Records supporting validation of false positives shall be maintained in accordance with Section IV Standard Provisions (Attachment B).

D. Priority Pollutant Effluent Limitations (Sections V.A.1.f and g). Compliance with effluent limitations for priority pollutants shall be determined in accordance with Section 2.4.5 of the SIP, as follows:

1. Dischargers shall be deemed out of compliance with an effluent limitation, if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the RL.

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

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

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

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

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

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

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

5. **Dissolved Oxygen Receiving Water Limitation (Section VIII.A.6).** 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 parts VIII.A.6.a.iii, VIII.A.6.a.iv, VIII.A.6.b.i, VIII.A.6.b.ii, and VIII.A.6.b.iii of the dissolved oxygen receiving water limitation to ensure the discharge does not cause the dissolved oxygen concentrations in the receiving water to be reduced below the applicable dissolved oxygen concentration at any time. However, should more frequent dissolved oxygen receiving water monitoring be conducted, Central Valley Water Board staff may evaluate compliance with parts VIII.A.6.a.i and VIII.A.6.a.ii.

6. **pH Receiving Water Limitation (Section VIII.A.9).** 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.9, the pH receiving water limitation to ensure the discharge does not cause the pH in the receiving water to be changed more than allowed in parts VIII.A.9.a, VIII.A.9.b, and VIII.A.9.c.

7. **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.

8. **Turbidity Receiving Water Limitation (Section VIII.A.18).** 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.18, the turbidity receiving water limitation to ensure the discharge does not cause the turbidity in the receiving water to be increased.

ATTACHMENT A – DEFINITIONS

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

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

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

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

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

Carcinogenic
Carcinogenic pollutants are substances that are known to cause cancer in living organisms.

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

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

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

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

Detected, but Not Quantified (DNQ)
DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Effluent Concentration Allowance (ECA)
ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the

same meaning as waste load allocation (WLA) as used in U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

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

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

Estuaries
Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

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

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

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

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

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

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

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

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

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

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Central Valley Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

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

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

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

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

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

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

ATTACHMENT B – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

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

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

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

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

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

E. Property Rights

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

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

F. Inspection and Entry

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

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, § 13267, 13383); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

G. Bypass

1. Definitions
   - **a.** “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
   - **b.** “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Central Valley Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
   - **a.** Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
   - **b.** There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
   - **c.** The Discharger submitted notice to the Central Valley Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
4. The Central Valley Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Valley Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

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

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

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

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

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

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

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

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

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

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

B. Monitoring results must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. subchapters N or O. In the case of pollutants for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants. (40 C.F.R. § 122.41(j)(4); 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

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

B. Records of monitoring information shall include:

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

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

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

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

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

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

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Central Valley Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Central Valley Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Central Valley Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

B. Signatory and Certification Requirements

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

2. All permit applications shall be signed in accordance with the following:

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

b. For a partnership or sole proprietorship, all permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)

c. For a municipality, state, federal, or other public agency, all permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3).).

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

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

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant

manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and

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

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

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

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

C. Monitoring Reports

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

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Central Valley Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)

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

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

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the

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

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):

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

b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

3. The Central Valley Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

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

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

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged (if the discharge is not an existing manufacturing, commercial, mining, or silvicultural discharge). This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)

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

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

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

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

VI. STANDARD PROVISIONS – ENFORCEMENT

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

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

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

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

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

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

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

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

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

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

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

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

ATTACHMENT C – MONITORING AND REPORTING PROGRAM

Contents

I. General Monitoring Provisions C-2
II. Monitoring Locations C-3
III. Influent Monitoring Requirements for Discharges with Intake Water Credits C-3
IV. Effluent Monitoring Requirements C-4
  A. Monitoring Location EFF-001 ..... C-4
  B. Monitoring Location EFF-002, Etc. C-9
  C. Facilities with Intake Water Credits C-9
V. Whole Effluent Toxicity Testing Requirements C-9
VI. Land Discharge Monitoring Requirements – Not Applicable C-11
VII. Recycling Monitoring Requirements – Not Applicable C-11
VIII. Receiving Water Monitoring Requirements C-11
  A. Monitoring Locations RSW-001U and RSW-001D and All Additional Locations C-11
IX. Other Monitoring Requirements – Not Applicable C-12
X. Reporting Requirements C-12
  A. General Monitoring and Reporting Requirements C-12
  B. Self-Monitoring Reports (SMR's) C-13
  C. Discharge Monitoring Reports (DMR's) – Not Applicable C-16
  D. Other Reports C-16

Tables

Table C-1. Monitoring Station Locations C-3
Table C-2. Effluent Monitoring C-4
Table C-3. Receiving Water Monitoring Requirements C-12
Table C-4. Monitoring Periods and Reporting Schedule C-14

ATTACHMENT C – MONITORING AND REPORTING PROGRAM (MRP)

Title 40 of the Code of Federal Regulations (CFR), section 122.48 (40 CFR 122.48) requires that all NPDES permits specify monitoring and reporting requirements. California Water Code (CWC) sections 13267 and 13383 also authorize the Central Valley Regional Water Quality Control Board (Central Valley Water Board) to require technical and monitoring reports. This Monitoring and Reporting Program establishes monitoring and reporting requirements, which implement the federal and California regulations. Specific monitoring requirements for constituents with effluent limitations will be specified in the Notice of Applicability.

I. GENERAL MONITORING PROVISIONS

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

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

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

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

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

F. Laboratories analyzing monitoring samples shall be certified by DDW, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

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

H. The results of all monitoring required by this Order shall be reported to the Central Valley Water Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.

I. Monitoring intervals and requirements for intermittent discharges will be addressed by the Executive Officer in the NOA.

J. For intermittent discharges, upon startup of the discharge, the Discharger shall monitor and record data for all constituents listed in the NOA. The frequency of subsequent analysis will then follow the schedule described in Attachment C, the Monitoring and Reporting Program, and specified in the NOA. In no event shall the Discharger be required to monitor and record data more often than twice the frequencies stated in the NOA.

K. For drinking water system discharges, the Executive Officer may refer to the State Water Board's NPDES Order WQ 2014-0194-DWQ when establishing monitoring requirements in the NOA.

II. MONITORING LOCATIONS

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

Table C-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description [3]
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.

[1] Dischargers enrolled under this General Order for more than one discharge point must comply with effluent limitations and monitoring requirements at each discharge point.
[2] Additional discharge points may be added following the naming conventions used in Table E-1, above
[3] Monitoring Station Locations may be further described in the NOA.

III. INFLUENT MONITORING REQUIREMENTS

A. Discharges with Intake Water Credits.

1. Influent samples shall be collected and analyzed in accordance with the frequency and type specified in the NOA for flow and each pollutant for which an intake water credit has been granted as specified in the NOA. Samples must be taken simultaneously from the influent and effluent or phased to account for the time that it takes water to travel from the water intake to the discharge point. If required, for every influent sample taken an effluent sample must also be taken.

2. If multiple water sources are used at the facility, including the receiving water, the flow of each water source must be measured to allow for calculation of flow-weighted influent concentration and mass values.

IV. EFFLUENT MONITORING REQUIREMENTS

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 SMRs.

Table C-2. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
Volume, Total	Million Gallons (MG)	Known or Calculated	1	2
Discharge Flow Rate, Total	GPD	Estimated	1	2
Discharge Flow Rate, Total	MGD	Meter	1	2
Constituents and Parameters of Concern				
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	Grab	1	3
Total Suspended Solids	mg/L	Grab	1	3
Dissolved Oxygen	mg/L	Grab	1	2. 3
Hardness, Total (as $CaCO_3$)	mg/L	Grab	1	2, 3, 4
pH	standard units	Grab	1	2, 34
Temperature	°F	Grab	1	2, 3
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1	2, 3
Total Dissolved Solids	mg/L	Grab	1	2, 3
Settleable Solids	mL/L	Grab	1	3
Turbidity	NTU	Grab	1	2, 3
Total Coliform Organisms	MPN/100mL	Grab	1	3
Escherichia Coliform Organisms	MPN/100mL	Grab	1	3
Un-ionized Ammonia Nitrogen, Total (as N)	mg/L	Grab	1	3, 5
Chlorine, Total Residual	mg/L	Grab	1	2, 3, 6
Acute Toxicity	% Survival	Grab	1	3, 9
Chronic Toxicity	TUc	Grab	1	3, 9
Foaming Agents (MBAS)	µg/L	Grab	1	3
Standard Minerals [8]	mg/L	Grab	1	3
Aluminum, Total Recoverable	µg/L	Grab	1	3, 7
Barium, Total Recoverable	µg/L	Grab	1	3
Boron	mg/L	Grab	1	3
Chloride	mg/L	Grab	1	3
Chromium, Total	µg/L	Grab	1	3
Fluoride	µg/L	Grab	1	3
Iron, Total Recoverable	µg/L	Grab	1	3
Manganese, Total Recoverable	µg/L	Grab	1	3
Mercury, Methyl	ng/L	Grab	1	3, 10

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
Molybdenum	µg/L	Grab	[1]	[3]
Nitrate Nitrogen, Total (as N) [11]	mg/L	Grab	[1]	[3]
Nitrite (as N) [11]	mg/L	Grab	[1]	[3]
Nitrate plus Nitrite [11]	mg/L	Grab	[1]	[3]
Phosphorus, Total (as P)	mg/L	Grab	[1]	[3]
Sulfate	mg/L	Grab	[1]	[3]
Sulfide (as S)	mg/L	Grab	[1]	[3]
Sulfite (as SO_3)	mg/L	Grab	[1]	[3]
Tributyltin	µg/L	Grab	[1]	[3]
Alachlor	µg/L	Grab	[1]	[3]
Atrazine	µg/L	Grab	[1]	[3]
Bentazon	µg/L	Grab	[1]	[3]
Carbofuran	µg/L	Grab	[1]	[3]
Chlorpyrifos	µg/L	Grab	[1]	[3]
2,4-D	µg/L	Grab	[1]	[3]
2,4,5-TP (Silvex)	µg/L	Grab	[1]	[3]
Dalapon	µg/L	Grab	[1]	[3]
Diazinon	µg/L	Grab	[1]	[3]
Di(2-ethylhexyl)adipate	µg/L	Grab	[1]	[3]
Dinoseb	µg/L	Grab	[1]	[3]
Diquat	µg/L	Grab	[1]	[3]
Endothal	µg/L	Grab	[1]	[3]
Ethylene Dibromide (EDB)	µg/L	Grab	[1]	[3]
Methoxychlor	µg/L	Grab	[1]	[3]
Molinate (Ordram)	µg/L	Grab	[1]	[3]
Oxamyl	µg/L	Grab	[1]	[3]
Picloram	µg/L	Grab	[1]	[3]
Simazine (Princep)	µg/L	Grab	[1]	[3]
Thiobencarb	µg/L	Grab	[1]	[3]
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	µg/L	Grab	[1]	[3]
1,2-Dichloroethene (cis and trans DCE)	µg/L	Grab	[1]	[3]
1,2-Dibromo-3-Chloropropane (DBCP)	µg/L	Grab	[1]	[3]
1,2,3-Trichloropropane (TCP)	µg/L	Grab	[1]	[3]
1,3-Butadiene	µg/L	Grab	[1]	[3]
1,3-Dichloropropene (cis and trans)	µg/L	Grab	[1]	[3]
2-Butanone (Methyl ethyl ketone or MEK)	µg/L	Grab	[1]	[3]
2-Chloroethylvinyl ether	µg/L	Grab	[1]	[3]
2-Hexanone (Methyl n-butyl ketone)	µg/L	Grab	[1]	[3]
3-Methyl-4-Chlorophenol	µg/L	Grab	[1]	[3]
Acetone	µg/L	Grab	[1]	[3]
Carbon Disulfide	µg/L	Grab	[1]	[3]
Chloromethane (Methyl chloride)	µg/L	Grab	[1]	[3]
MTBE (Methyl tertiary butyl ether)	µg/L	Grab	[1]	[3]
Stoddard Solvent	µg/L	Grab	[1]	[3]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
Styrene	µg/L	Grab	1	3
Trichlorofluoromethane (Freon 11)	µg/L	Grab	1	3
Xylenes	µg/L	Grab	1	3
Priority Pollutants				
Antimony, Total Recoverable	µg/L	Grab	1	3, 12
Arsenic, Total Recoverable	µg/L	Grab	1	3, 12
Beryllium, Total Recoverable	µg/L	Grab	1	3, 12
Cadmium, Total Recoverable	µg/L	Grab	1	3, 4, 12
Chromium (III)	µg/L	Grab	1	3, 4, 12
Chromium (VI)	µg/L	Grab	1	3, 12
Copper, Total Recoverable	µg/L	Grab	1	3, 4, 12
Lead, Total Recoverable	µg/L	Grab	1	3, 4, 12
Mercury, Total Recoverable	µg/L	Grab	1	3, 10, 12
Nickel, Total Recoverable	µg/L	Grab	1	3, 4, 12
Selenium, Total Recoverable	µg/L	Grab	1	3, 12
Silver, Total Recoverable	µg/L	Grab	1	3, 4, 12
Thallium, Total Recoverable	µg/L	Grab	1	3, 12
Zinc, Total Recoverable	µg/L	Grab	1	3, 4, 12
Cyanide, Total (as CN)	µg/L	Grab	1	3, 12
Asbestos	MFL	Grab	1	3, 12
2,3,7,8-TCDD	µg/L	Grab	1	3, 12
Acrolein	µg/L	Grab	1	3, 12
Acrylonitrile	µg/L	Grab	1	3, 12
Benzene	µg/L	Grab	1	3, 12
Bromoform	µg/L	Grab	1	3, 12
Carbon Tetrachloride (Freon 10)	µg/L	Grab	1	3, 12
Chlorobenzene	µg/L	Grab	1	3, 12
Chlorodibromomethane	µg/L	Grab	1	3, 12
Chloroethane	µg/L	Grab	1	3, 12
2-Chloroethylvinyl Ether	µg/L	Grab	1	3, 12
Chloroform	µg/L	Grab	1	3, 12
Dichlorobromomethane	µg/L	Grab	1	3, 12
1,1-Dichloroethane (DCA)	µg/L	Grab	1	3, 12
1,2-Dichloroethane (DCA)	µg/L	Grab	1	3, 12
1,1-Dichloroethylene (DCE)	µg/L	Grab	1	3, 12
1,2-Dichloropropane	µg/L	Grab	1	3, 12
1,3-Dichloropropylene	µg/L	Grab	1	3, 12
Ethylbenzene	µg/L	Grab	1	3, 12
Methyl Bromide (Bromomethane)	µg/L	Grab	1	3, 12
Methyl Chloride (Chloromethane)	µg/L	Grab	1	3, 12
Methylene Chloride (Dichloromethane)	µg/L	Grab	1	3, 12
1,1,2,2-Tetrachloroethane	µg/L	Grab	1	3, 12
Tetrachloroethylene (PCE)	µg/L	Grab	1	3, 12
Toluene	µg/L	Grab	1	3, 12

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
1,2-Trans-Dichloroethylene (DCE)	µg/L	Grab	1	3, 12
1,1,1-Trichloroethane (TCA)	µg/L	Grab	1	3, 12
1,1,2-Trichloroethane (TCA)	µg/L	Grab	1	3, 12
Trichloroethylene (TCE)	µg/L	Grab	1	3, 12
Vinyl Chloride (Chloroethene)	µg/L	Grab	1	3, 12
2-Chlorophenol	µg/L	Grab	1	3, 12
2,4-Dichlorophenol	µg/L	Grab	1	3, 12
2,4-Dimethylphenol	µg/L	Grab	1	3, 12
2-Methyl-4,6-Dinitrophenol	µg/L	Grab	1	3, 12
2,4-Dinitrophenol	µg/L	Grab	1	3, 12
2-Nitrophenol	µg/L	Grab	1	3, 12
4-Nitrophenol	µg/L	Grab	1	3, 12
3-Methyl-4-Chlorophenol	µg/L	Grab	1	3, 12
Pentachlorophenol (PCP)	µg/L	Grab	1	3, 12
Phenol	µg/L	Grab	1	3, 12
2,4,6-Trichlorophenol	µg/L	Grab	1	3, 12
Acenaphthene	µg/L	Grab	1	3, 12
Acenaphthylene	µg/L	Grab	1	3, 12
Anthracene	µg/L	Grab	1	3, 12
Benzidine	µg/L	Grab	1	3, 12
Benzo(a)Anthracene	µg/L	Grab	1	3, 12
Benzo(a)Pyrene	µg/L	Grab	1	3, 12
Benzo(b)Fluoranthene	µg/L	Grab	1	3, 12
Benzo(ghi)Perylene	µg/L	Grab	1	3, 12
Benzo(k)Fluoranthene	µg/L	Grab	1	3, 12
Bis(2-Chloroethoxy)Methane	µg/L	Grab	1	3, 12
Bis(2-Chloroethyl)Ether	µg/L	Grab	1	3, 12
Bis(2-Chloroisopropyl)Ether	µg/L	Grab	1	3, 12
Bis(2-Ethylhexyl)Phthalate	µg/L	Grab	1	3, 12, 13
4-Bromphenyl Phenyl Ether	µg/L	Grab	1	3, 12
Butylbenzyl Phthalate	µg/L	Grab	1	3, 12
2-Chloronaphthalene	µg/L	Grab	1	3, 12
4-Chlorophenyl Phenyl Ether	µg/L	Grab	1	3, 12
Chrysene	µg/L	Grab	1	3, 12
Dibenzo(a,h)Anthracene	µg/L	Grab	1	3, 12
1,2-Dichlorobenzene	µg/L	Grab	1	3, 12
1,3-Dichlorobenzene	µg/L	Grab	1	3, 12
1,4-Dichlorobenzene	µg/L	Grab	1	3, 12
3,3-Dichlorobenzidine	µg/L	Grab	1	3, 12
Diethyl Phthalate	µg/L	Grab	1	3, 12
Dimethyl Phthalate	µg/L	Grab	1	3, 12
Di-n-Butyl Phthalate	µg/L	Grab	1	3, 12
2,4-Dinitrotoluene	µg/L	Grab	1	3, 12
2,6-Dinitrotoluene	µg/L	Grab	1	3, 12

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
Di-n-Octyl Phthalate	µg/L	Grab	[1]	[3, 12]
1,2-Diphenylhydrazine	µg/L	Grab	[1]	[3, 12]
Fluoranthene	µg/L	Grab	[1]	[3, 12]
Fluorene	µg/L	Grab	[1]	[3, 12]
Hexachlorobenzene	µg/L	Grab	[1]	[3, 12]
Hexachlorobutadiene	µg/L	Grab	[1]	[3, 12]
Hexachlorocyclopentadiene	µg/L	Grab	[1]	[3, 12]
Hexachloroethane	µg/L	Grab	[1]	[3, 12]
Indeno(1,2,3-cd)Pyrene	µg/L	Grab	[1]	[3, 12]
Isophorone	µg/L	Grab	[1]	[3, 12]
Naphthalene	µg/L	Grab	[1]	[3, 12]
Nitrobenzene	µg/L	Grab	[1]	[3, 12]
N-Nitrosodimethylamine	µg/L	Grab	[1]	[3, 12]
N-Nitrosodi-n-Propylamine	µg/L	Grab	[1]	[3, 12]
N-Nitrosodiphenylamine	µg/L	Grab	[1]	[3, 12]
Phenanthrene	µg/L	Grab	[1]	[3, 12]
Pyrene	µg/L	Grab	[1]	[3, 12]
1,2,4-Trichlorobenzene	µg/L	Grab	[1]	[3, 12]
Aldrin	µg/L	Grab	[1]	[3, 12]
alpha-BHC (benzene hexachloride)	µg/L	Grab	[1]	[3, 12]
beta-BHC (benzene hexachloride)	µg/L	Grab	[1]	[3, 12]
gamma-BHC (benzene hexachloride or lindane)	µg/L	Grab	[1]	[3, 12]
delta-BHC (benzene hexachloride)	µg/L	Grab	[1]	[3, 12]
Chlordane	µg/L	Grab	[1]	[3, 12]
4,4'-DDT	µg/L	Grab	[1]	[3, 12]
4,4'-DDE	µg/L	Grab	[1]	[3, 12]
4,4'-DDD	µg/L	Grab	[1]	[3, 12]
Dieldrin	µg/L	Grab	[1]	[3, 12]
alpha-Endosulfan	µg/L	Grab	[1]	[3, 12]
beta-Endolsulfan	µg/L	Grab	[1]	[3, 12]
Endosulfan Sulfate	µg/L	Grab	[1]	[3, 12]
Endrin	µg/L	Grab	[1]	[3, 12]
Endrin Aldehyde	µg/L	Grab	[1]	[3, 12]
Heptachlor	µg/L	Grab	[1]	[3, 12]
Heptachlor Epoxide	µg/L	Grab	[1]	[3, 12]
Polychlorinated Biphenyls (PCB's) [14]	µg/L	Grab	[1]	[3, 12]
Toxaphene	µg/L	Grab	[1]	[3, 12]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method

[1] The minimum sampling frequency (e.g., 2/Week, 1/Month, 1/Quarter) will be specified in the Notice of Applicability (NOA).
[2] A hand-held field meter may be used, provided the meter utilizes a U.SEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
[3] Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
[4] Monitoring for hardness shall be performed concurrently with effluent sampling for cadmium, chromium (III), copper, lead, nickel, silver, and/or zinc if effluent sampling for any of these pollutants is required.
[5] Concurrent with whole effluent toxicity monitoring.
[6] Total chlorine residual must be monitored with a method sensitive to and accurate at a reporting level (RL) of 0.08 mg/L.
[7] Compliance with the final effluent limitations for aluminum can be demonstrated using either total or acid-soluble (inductively coupled plasma/atomic emission spectrometry or inductively coupled plasma/mass spectrometry) analysis methods, as supported by U.S. EPA's *Ambient Water Quality Criteria for Aluminum* document (EPA 440/5-86-008), or other standard methods that exclude aluminum silicate particles as approved by the Executive Officer.
[8] 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).
[9] See the MRP (Attachment C, section V, below) for toxicity monitoring requirements.
[10] Unfiltered methyl mercury and total mercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels*, for collection of equipment blanks (section 9.4.4.2), and shall be analyzed by U.S. EPA method 1630/1631 (Revision E) with a reporting limit of 0.05 ng/L for methyl mercury and 0.5 ng/L for total mercury.
[11] Monitoring for nitrite and nitrate shall be conducted concurrently.
[12] For priority pollutant constituents the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California
[13] In order to verify if bis (2-ethylhexyl) phthalate is truly present in the effluent discharge, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant. Sampling and analysis of Bis (2-ethylhexyl) phthalate shall be conducted using ultra-clean techniques that eliminate the possibility of sample contamination.
[14] Applies to the sum of Polychlorinated biphenyls (PCB's) aroclors 1242, 1254, 1221, 1232, 1248, 1280, and 1016.

B. Monitoring Location EFF-002 and Additional Monitoring Locations:

All dischargers with more than one discharge location shall be required to monitor all discharge locations as described above in Table E-1 and as specified in the NOA.

C. Effluent Monitoring for Facilities with Intake Water Credits

Effluent samples shall be collected and analyzed in accordance with the frequency and type specified in the NOA for flow and each pollutant for which an intake water credit has been granted as specified in the NOA. Samples must be taken simultaneously from the influent and effluent or phased to account for the time that it takes water to travel from the water intake to the discharge point. If required, for every effluent sample taken an influent sample must also be taken.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Testing. Tier 2 and Tier 3 dischargers shall conduct acute toxicity testing to determine whether the effluent is contributing acute toxicity to the receiving water. Every Tier 2 and Tier 3 Discharger shall meet the following acute toxicity testing requirements:

1. *Monitoring Frequency* –Tier 2 and Tier 3 dischargers shall perform acute toxicity testing every six months or as directed by the Executive Officer in the Notice of Applicability. Dischargers of Tier 1 discharges are not required to conduct acute toxicity testing.

2. *Sample Types* – Each Discharger may use flow-through or static renewal testing. For static renewal testing, the effluent samples shall be grab samples and shall be

representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001 and any other effluent discharge location specified in the NOA.

3. *Test Species* – The test species shall be fathead minnows (*Pimephales promelas*) or rainbow trout (*Oncorhynchus mykiss*), as specified in the Notice of Applicability.

4. *Methods* – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition. Temperature, total residual chlorine, and pH shall be recorded at the time of sample collection. No pH adjustment may be made unless approved by the Executive Officer.

5. *Test Failure* – If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger must re-sample and re-test as soon as possible, not to exceed 7 days following notification of test failure.

B. Chronic Toxicity Testing. Tier 1B, Tier 2 and Tier 3 dischargers shall conduct three species chronic toxicity testing to determine whether the effluent is contributing chronic toxicity to the receiving water. The Discharger shall meet the following chronic toxicity testing requirements:

1. *Monitoring Frequency* –Tier 1B, Tier 2, and Tier 3 dischargers shall perform annual three species chronic toxicity testing or as directed by the Executive Officer in the Notice of Applicability. Dischargers of Tier 1A discharges are not required to conduct chronic toxicity testing.

2. *Sample Types* – Effluent samples shall be grab samples and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001 and any other effluent discharge location specified in the NOA.

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

4. *Test Species* – Chronic toxicity testing measures sublethal (e.g., reduced growth, reproduction) and/or lethal effects to test organisms exposed to an effluent compared to that of the control organisms. The Discharger shall conduct chronic toxicity tests with:

The cladoceran, water flea, *Ceriodaphnia dubia* (survival and reproduction test);

The fathead minnow, *Pimephales promelas* (larval survival and growth test); and

The green alga, *Selenastrum capricornutum* (growth test).

5. *Methods* – The presence of chronic toxicity shall be estimated as specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition*, EPA/821-R-02-013, October 2002.

6. *Reference Toxicant* – As required by the SIP, all chronic toxicity tests shall be conducted with concurrent testing with a reference toxicant and shall be reported with the chronic toxicity test results.

7. *Dilutions* – For chronic toxicity monitoring, the test shall be performed using 100% effluent and one control. A laboratory water control shall be used.

8. *Test Failure* – The Discharger must re-sample and re-test as soon as possible, but no later than fourteen (14) days after receiving notification of a test failure. A test failure is defined as follows:

a. The reference toxicant test or the effluent test does not meet all test acceptability criteria as specified in the *Short-term Methods for Estimating the Chronic Toxicity of*

Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002 (Method Manual), and its subsequent amendments or revisions; or

b. The percent minimum significant difference (PMSD) measured for the test exceeds the upper PMSD bound variability criterion in Table 6 on page 52 of the Method Manual. (A retest is only required in this case if the test results do not exceed the monitoring trigger specified in the Special Provision at section IX.C.2.a.i. of the Order.

C. WET Testing Notification Requirements. Each Discharger shall notify the Central Valley Water Board within 24-hours after the receipt of test results exceeding the monitoring trigger during regular or accelerated monitoring, or an exceedance of the acute toxicity effluent limitation.

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.

2. Acute WET Reporting. Acute toxicity test results shall be submitted with the monthly discharger self-monitoring reports and reported as percent survival.

3. Quality Assurance (QA). Each Discharger must provide the following information for QA purposes:

a. Results of the applicable reference toxicant data with the statistical output page giving the species, NOEC, LOEC, type of toxicant, dilution water used, concentrations used, PMSD, and dates tested.

b. The reference toxicant control charts for each endpoint, which include summaries of reference toxicant tests performed by the contracting laboratory.

c. Any information on deviations or problems encountered and how they were dealt with.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Locations RSW-001U, RSW-001D, and any/all additional monitoring locations.

1. Each Discharger shall monitor the receiving water at Monitoring Locations RSW-001U, RSW-001D, and all additional locations, if specified by the Executive Officer in the Notice of Applicability, as follows:

Table C-3. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	standard units	Grab	[1]	[2, 3]
Dissolved Oxygen	mg/L	Grab	[1]	[2, 3]
Electrical Conductivity @ 25°C	µmhos/cm	Grab	[1]	[2, 3]
Hardness, Total (as $CaCO^3$)	mg/L	Grab	[1]	[2, 3]
Temperature	°F	Grab	[1]	[2, 3]
Turbidity	NTU	Grab	[1]	[2, 3]

[1] The minimum sampling frequency (e.g., 2/Week, 1/Month, 1/Quarter) shall be specified by the Executive Officer in the Notice of Applicability.

[2] Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

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

2. If receiving water monitoring is required in the Notice of Applicability, a log shall be kept of the receiving water conditions throughout the reach bounded by Monitoring Locations RSW-001U, RSW-001D, and all additional locations. Attention shall be given to the presence or absence of:

a. Floating or suspended matter;
b. Discoloration;
c. Bottom deposits;
d. Aquatic life;
e. Visible films, sheens, or coatings;
f. Fungi, slimes, or objectionable growths; and
g. Potential nuisance conditions.

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

IX. OTHER MONITORING REQUIREMENTS – NOT APPLICABLE

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. New Dischargers who have received a Notice of Applicability for coverage under this General Order shall inform the Central Valley Water Board 24 hours before the start of the discharge.

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-1, compared with the appropriate screening levels, and submitted with the NOI.

3. Authorized Dischargers shall comply with all Standard Provisions (Attachment B) related to monitoring, reporting, and recordkeeping.

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

5. Monitoring reports shall be submitted to the Central Valley Water Board each quarter. If no discharge occurred during the reporting quarter, the monitoring report shall document that there was no discharge.

B. Self-Monitoring Reports (SMR's)

1. Existing Enrolled Dischargers

a. 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 (SMRs) 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 submit hard copy SMRs. The CIWQS Web provides additional directions for electronic SMR submittal.

b. 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 SMRs 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.

c. 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

a. 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.

b. 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-4. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
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
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

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

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

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

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

   For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical

estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

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

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

5. **Multiple Sample Data.** When determining compliance with an AMEL, AWEL, or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

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

6. Dischargers shall submit SMR's in accordance with the following requirements:

a. Each Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

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

c. Each Discharger shall attach all laboratory analysis sheets, including quality assurance/quality control information, with all its SMR's for which sample analyses were performed.

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.

C. Discharge Monitoring Reports (DMR's) – Not Applicable

D. Other Reports

1. **Salinity Evaluation and Minimization Plan.** All 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.

2. **Pollution Prevention and Monitoring and Reporting Plan**. Drinking water suppliers that have or propose to have numerous discharge points covered by this general order are required to develop a site specific Pollution Prevention and Monitoring and Reporting Plan (PPMRP) and submit the document with the Notice of Intent. The information required for the PPMRP is shown in Attachment G.

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. 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.

4. **Closure Certification for Discharges from Drinking Water Supply Systems.** If a drinking water supply system Discharger received an exception as allowed by section 5.3 of the SIP, then upon termination of the discharge, certification is required by a qualified biologist that the beneficial uses of the receiving water have been restored. The Closure Certification is to be submitted with the request for termination.

ATTACHMENT D – FACT SHEET

Contents

I. Permit Information D-3
A. Background D-3
1. Limited Threat General Order R5-2013-0073-01 ..... D-3
2. Low Threat General Order R5-2013-0074 ..... D-3
B. General Criteria D-4
II. Discharge Information D-4
III. Notification Requirements D-6
A. Requirements for All Dischargers D-6
B. Additional Requirements for Specific Dischargers D-8
1. Impaired Waterbodies D-8
2. Drinking Water Supply Systems D-9
3. High Salinity Effluent D-9
4. Intake Water Credit D-9
5. Wastewater that Requires Treatment Prior to Discharge D-10
IV. General Order Coverage D-11
A. New Dischargers D-11
B. Existing Dischargers D-11
C. Changes in Discharge/Coverage D-11
D. Termination of Discharge D-12
E. Expiration of General Order D-12
F. Ineligible Dischargers D-12
G. Screening Levels D-13
V. Applicable Plans, Policies, and Regulations D-13
A. Legal Authorities D-13
B. California Environmental Quality Act (CEQA) D-13
C. State and Federal Laws, Regulations, Policies, and Plans D-14
D. Other Plans, Policies and Regulations – Not Applicable D-15
VI. Rationale For Effluent Limitations and Discharge Specifications D-16
A. Discharge Prohibitions D-17
B. Technology-Based Effluent Limitations D-17
1. Scope and Authority D-17
2. Applicable Technology-Based Effluent Limitations D-18
C. Water Quality-Based Effluent Limitations (WQBEL's) D-20
1. Scope and Authority D-20
2. Applicable Beneficial Uses and Water Quality Criteria and Objectives D-21
3. Determining the Need for WQBEL's D-24
4. WQBEL Calculations D-30
5. Whole Effluent Toxicity (WET) D-31
D. Final Effluent Limitation Considerations D-33
1. Mass-based Effluent Limitations D-33
2. Averaging Periods for Effluent Limitations D-34
3. Satisfaction of Anti-Backsliding Requirements – Removal of Salinity Eff. Limits D-34
4. Satisfaction of Anti-Backsliding Requirements - Eff. Limit Modifications to NOA D-35
5. Antidegradation Policies D-35
6. Summary of Final Effluent Limitations D-36
E. Interim Effluent Limitations – Not Applicable D-36

F. Land Discharge Specifications – Not Applicable D-36
G. Recycling Specifications – Not Applicable D-36
VII. Rationale for Receiving Water Limitations D-36
A. Surface Water D-36
B. Groundwater – Not Applicable D-37
VIII. Rationale for Provisions D-37
A. Standard Provisions D-37
B. Special Provisions D-37
1. Reopener Provisions D-37
2. Special Studies and Additional Monitoring Requirements D-38
3. Best Management Practices and Pollution Prevention D-39
4. Construction, Operation, and Maintenance Specifications – Not Applicable D-39
5. Special Provisions for Municipal Facilities (POTW's Only) – Not Applicable D-39
6. Other Special Provisions D-39
7. Compliance Schedules – Not Applicable D-39
IX. Rationale for Monitoring and Reporting Requirements D-39
A. Influent Monitoring – Not Applicable D-39
B. Effluent Monitoring D-40
C. Whole Effluent Toxicity Testing Requirements D-40
1. Acute Toxicity D-40
2. Chronic Toxicity D-40
3. Low Volume Exemption D-40
4. Tier 1 Exemption D-40
D. Receiving Water Monitoring D-41
1. Surface Water D-41
2. Groundwater – Not Applicable D-41
E. Other Monitoring Requirements – Not Applicable D-41
X. Public Participation D-41
A. Notification of Interested Parties D-41
B. Written Comments D-42
C. Public Hearing D-42
D. Reconsideration of Waste Discharge Requirements D-42
E. Information and Copying D-42
F. Register of Interested Persons D-42
G. Additional Information D-43

Tables

Table D-1. Eligible Discharges with Applicable Permits D-5
Table D-2. Technology-Based Effluent Limitations for BOD, TSS, and Settleable Solids D-18
Table D-3. Technology-Based Effluent Limitations for Remediation Sites D-19
Table D-4. Technology-Based Effluent Limitations for Hard Rock Mines D-20

ATTACHMENT D – FACT SHEET

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

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

I. PERMIT INFORMATION

A. Background

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act) was amended to provide that the discharge of pollutants to waters of the United States from any point source is effectively prohibited unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit.

On 22 September 1989, the United States Environmental Protection Agency (U.S. EPA) granted the State of California, through the State Water Resources Control Board (State Water Board) and the Regional Water Quality Control Boards (Regional Water Boards), the authority to issue general NPDES permits pursuant to 40 Code of Federal Regulations (C.F.R.) parts 122 and 123.

40 C.F.R. 122.28 provides for issuance of general permits to regulate a category of point sources if the sources involve the same or substantially similar types of operations; discharge the same type of waste; require the same type of effluent limitations or operating conditions; require similar monitoring; and are more appropriately regulated under a general order rather than individual orders.

1. Limited Threat General Order R5-2013-0073-01

The previous Limited Threat General Order R5-2013-0073-01 (Waste Discharge Requirements for Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water) was adopted by the California Regional Water Quality Control Board, Central Valley Region, on 31 May 2013 and amended on 6 June 2014. The previous Limited Threat General Order applied to the following:

a. Treated or Untreated Groundwater from Cleanup Sites;

b. Wastewater from Superchlorination Projects; and

c. Other miscellaneous limited threat wastewaters (including hard rock mines).

The hard rock mine component of Order R5-2013-0073-01 is not comprehensive, low threat discharges are excluded, the cleanup component of the Order is restricted to groundwater, and the Order is limited on the other types of discharges that can be included.

2. Low Threat General Order R5-2013-0074

Individuals, public agencies, private businesses, and other legal entities often need to discharge clean or relatively pollutant-free wastewater that poses little or no threat to water quality. These discharges are often short-term and low volume in nature.

Water suppliers may have numerous intentional and unintentional releases of fresh water to surface waters and surface water drainage courses due to many factors, including system failures, pressure releases, and pipeline/tank flushing and dewatering. For the purpose of this Order, these multiple discharges from water suppliers shall be considered a project. Public and private water suppliers, such as irrigation districts, water districts, and water agencies, may apply for coverage under the Low Threat General Order.

The Low Threat General Order covers certain categories of dewatering and other low threat discharges to waters of the United States, which are either 4 months or less in duration or have a daily average discharge flow that does not exceed 0.25 million gallons per day (MGD).

There is a new State Board General Order, WQ 2014-0194-DWQ intended for drinking water supply systems. Most of the drinking water supply discharges under the Low Threat General Order are now covered by State Board Order WQ 2014-0194-DWQ. However, some drinking water supply systems are not covered by WQ 2014-0194-DWQ and remain covered by the Low Threat General Order.

New enrollees will be enrolled under the new Limited Threat General Order as they apply. Existing enrollees will be enrolled under the new Limited Threat General Order upon expiration of the Low Threat General Order, which will be allowed to expire without renewal.

3. This Order replaces the previous Limited Threat General Order, allows for future enrollment of drinking water supply systems that do not fit under State Board Order WQ 2014-0194-DWQ, specifically includes wastewater discharges from hard rock mines, and broadens the eligibility requirements.

B. General Criteria

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), 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, pesticide and fertilizer facilities, superchlorination projects, equipment decontamination, and brownfields. Tier 3 discharges are liquid mine waste discharges from hard rock mines.

II. DISCHARGE INFORMATION

Eligible Discharges. This Limited Threat General Order applies to individuals, public agencies, private businesses, and other legal entities (hereafter Dischargers) discharging limited threat wastewaters to waters of the United States as follows:

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 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, 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.)

Table D-1, below, lists some of the types of discharges that are eligible, the volume discharged, the duration of discharge, and the appropriate Tier under this General Order, that is applicable.

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	Tier 1A	Tier 1B
Construction Dewatering	Y	Tier 1A	Tier 1B
Pump/Well Testing	Y	Tier 1A	Tier 1B
Pipeline/Tank Pressure Testing	Y	Tier 1A	Tier 1B
Pipeline/Tank Flushing or Dewatering	Y	Tier 1A	Tier 1B
Condensate	Y	Tier 1A	Tier 1B
Water Supply System s	Y	Tier 1A	Tier 1B
Aggregate Mines	Y	Tier 1A	Tier 1B
Filter Backwash Water	Y	Tier 1A	Tier 1B
Miscellaneous Wastewaters that Meet Effluent Limitations without Treatment	Y	Tier 1A	Tier 1B

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
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
Wastewaters from Hard Rock Mines (Excluding Aggregate Mines) with or without Treatment	N	Tier 3	Tier 3

III. NOTIFICATION REQUIREMENTS

A. Requirements for All Discharges. All Dischargers enrolling for coverage under this General Order are required to submit a complete Notice of Intent (NOI), as detailed in Attachment J, which includes:

1. State Water Board Form 200.
2. A full description of the proposed project on official letterhead.
3. A project map which includes the location of the project, discharge point(s), and receiving water.
4. The appropriate first annual fee.

   California Water Code section 13260(d) requires each person for whom waste discharge requirements (WDRs) are issued to pay an annual fee to the State Water Board. California Water Code section 13260(f) requires: (1) the State Water Board to adopt a schedule of fees by emergency regulation; and (2) fees to be adjusted annually to conform to the revenue levels set forth in the State Budget Act for the activities that have been issued WDRs.

   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 , which can be found at http://www.waterboards.ca.gov/water_issues/programs/npdes/ and is payable to the State Water Board.

5. 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. Other

6. Evaluation of disposal/reclamation options;

Pursuant to section 2, Article X, California Constitution, and Water Code section 275, on preventing waste and unreasonable use of waters of the state, the Central Valley Water Board encourages, wherever practicable, water conservation and/or re-use of wastewater. Therefore, to obtain coverage under this General Order, Dischargers are required to evaluate their reclamation options. These options include:

a. Sanitary Sewage System

If all the discharge is accepted by the local municipal wastewater treatment plant (WWTP), then authorization to discharge under an NPDES permit is not needed for the proposed project. Dischargers may submit any denial or restrictive flow letter from the WWTP as proof that this option is not viable or explain why it is infeasible to connect to the WWTP.

b. Land Disposal

The land disposal option is usually restricted to the dry season (May through October) unless the Discharger can prove that the discharge can be retained on land during the wet season (November through April). All Dischargers must fully explain why land disposal is not a viable option.

c. Underground Injection

This option may be available for Dischargers at cleanup sites that find it is economically infeasible to treat the groundwater prior to discharging into surface waters that may be impacted by constituents that are found in impacted areas (e.g., sites discharging to 303(d) listed receiving waters). Additional information regarding the feasibility of underground injection as a disposal option can be obtained from the U.S. EPA Region 9 Office, Underground Injection Control Unit.

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

a. **New Discharges.** Upon receipt of the complete Notice of Intent, the Executive Officer shall determine the applicability of the proposed discharge to this General Order. If the discharge is deemed eligible for coverage under this General Order, the Executive Officer will issue a Notice of Applicability to the Discharger. The Notice of Applicability will specify that the discharge is authorized under the terms and conditions of this General Order and will prescribe effluent limitations and include a monitoring and reporting program. New discharges that are not covered by an existing individual or general NPDES permit may not commence discharging until issuance of a Notice of Applicability. If the discharge is not eligible for coverage under this General Order, the Executive Officer will notify the Discharger in writing with instructions on how to proceed.

New analytical results must be submitted every 5 years from the date of the NOA, for the pollutants specified in Table I-1 of Attachment I for the type of wastewater discharged.

This General Order shall apply to the individuals, public agencies, private businesses, and other legal entities that have submitted a complete NOI and have received a Notice of Applicability from the Executive Officer.

b. **Existing Discharges.** Current enrollees authorized to discharge under the existing Limited Threat General Order R5-2013-0073-01 (NPDES Permit No. CAG995002) are automatically authorized under this General Order to continue discharging. However to maintain general order coverage, the current enrollees must submit a complete Notice of Intent (NOI), as described in sections II.A.1.a through h, above, and in Attachment J, within 180 days of the adoption date of this Order, to adequately characterize the discharge for coverage under this Order.

New analytical results must be submitted every 5 years, for the pollutants specified in Table I-1 of Attachment I for the type of wastewater discharged. Those dischargers that have not submitted the suite of analytical results specified in Table I-1 of Attachment I in five years or more must submit the data within 180 days of adoption of this Order.

Upon submittal of an acceptable NOI, the Executive Officer will issue a revised Notice of Applicability to existing enrollees that coverage under the General Order will continue, specifying any new and continuing effluent limitations and a monitoring and reporting program. Failure to submit a new and acceptable NOI, as described above, may result in termination of coverage.

8. Certification by authorized personnel.

B. Additional Requirements for Specific Discharges. Additional NOI submittal requirements are included for specific dischargers:

1. **Impaired waterbodies.** Under section 303(d) of the 1972 CWA, states, territories and authorized tribes are required to develop lists of water quality limited segments. The waters on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. On 11 October 2011 U.S. EPA gave final approval to California's 2008-2010 section 303(d) List of Water Quality Limited Segments. The Basin Plans reference this list of Water Quality Limited Segments (WQLSs), which are defined as "…*those sections of lakes, streams, rivers or other fresh water bodies where water quality does not meet (or is not expected to meet) water quality standards even after the application of appropriate limitations for point sources* (40 C.F.R. part 130, et seq.)." The Basin Plans also state,

"*Additional treatment beyond minimum federal standards will be imposed on dischargers to [WQLSs]. Dischargers will be assigned or allocated a maximum allowable load of critical pollutants so that water quality objectives can be met in the segment*." Impaired waters do not fully support beneficial uses. If proposing to discharge into an impaired surface water, the Discharger must provide wastewater analysis of the 303(d) listed constituents of concern as part of the Notice of Intent.

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

Additional requirements include:

a. Analytical results of sampling of the proposed receiving water and effluent for pollutants causing impairment under CWA section 303(d) List, if applicable.

b. Demonstration of adequate treatment to ensure compliance at the point of discharge (i.e., end-of-pipe).

   i. 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;

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

   iii. Analytical results of sampling of the treated effluent for the applicable pollutants with effluent limitations specified in the NOA;

2. **Drinking water supply systems.** Categorical Exception for Priority Pollutant Criteria and Objectives.

   a. As discussed in section II.A.2.b of this General Order, section 5.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP) allows the Central Valley Water Board to allow certain Dischargers short-term or seasonal exceptions from meeting priority pollutant criteria and objectives for discharges that are necessary to implement control measures that fulfill statutory requirements regarding drinking water. Dischargers applying for a categorical exception to the priority pollutant criteria and objectives as authorized by section 5.3 of the SIP must submit the appropriate requirements with the application as specified by the SIP, including:

      i. A detailed description of the proposed action, including the proposed method of completing the action;

      ii. A time schedule;

      iii. A discharge and receiving water quality monitoring plan (before project initiation, during the project, and after project completion, with the appropriate quality assurance and quality control procedures);

      iv. CEQA documentation;

      v. Contingency plans;

      vi. Identification of alternate water supply (if needed); and

      vii. Residual waste disposal plans.

b. A Pollution Prevention and Monitoring and Reporting Plan (PPMRP), as outlined in Attachment G, if the project includes more than one existing or proposed discharge point.

c. Upon completion of the discharge, certification is required by a qualified biologist that the beneficial uses of the receiving water have been restored. The Certification must be submitted with the Request for Termination of Coverage form in Attachment E

3. **High salinity effluent.** All Dischargers with effluent electrical conductivity greater than 900 µmhos/cm, flows 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 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.

4. **Intake Water Credit.** Discharges qualify for Tier 2 of this Order because monitoring data indicate that the effluent demonstrates reasonable potential to cause or contribute to an exceedance of applicable water quality objectives. However, when the water intake from the receiving water is the major source of the pollutants and is responsible for the reasonable potential to exceed applicable water quality standards, an intake water credit can be granted in accordance with section 1.4.4 of the Policy for Implementation of the Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries in California (SIP). When an Intake Water Credit has been granted for a specific pollutant by the Executive Officer in the NOA, then treatment for that pollutant is not required.

   A Discharger must submit a written request for an intake water credit. The written request must be prepared in accordance with the NOI requirements in Attachment H and as specified in Attachment J, section 10. The Executive Officer of the Central Valley Water Board will decide whether to authorize the intake water credit, based on the monitoring data included with the NOI and other information submitted by the Discharger, and the requirements specified in the SIP, section 1.4.4.

   The SIP, section 1.4.4 specifies that a California Water Board may consider an intake water credit on a pollutant-by-pollutant and discharge-by-discharge basis when establishing water-quality based effluent limitations, provided that the Discharger satisfactorily demonstrates that the following conditions are met:

   a. The observed maximum ambient background concentrations, as determined in section 1.4.3.1 of the SIP, and the intake water concentration of the pollutant exceed the most stringent applicable criterion/objective for the pollutant;

   b. The intake water credits are consistent with any TMDL applicable to the discharge that has been approved by the Central Valley Water Board, the State Water Resources Control Board, and USEPA;

   c. The intake water is from the same water body as the receiving water body. The discharger may demonstrate this condition by showing:

      i. the ambient background concentration of the pollutant in the receiving water, excluding any amount of the pollutant in the facility's discharge, is similar to the that of the intake water;

      ii. there is direct hydrological connection between the intake and discharge points;

iii. the water quality characteristics are similar in the intake and receiving waters; and

iv. the intake water pollutant would have reached the vicinity of the discharge point in the receiving water within a reasonable period of time and with the same effect had it not been diverted by the discharger.

The Central Valley Water Board may also consider other factors when determining whether the intake water is from the same water body as the receiving water body;

d. The facility does not alter the intake water pollutant chemically or physically in a manner that adversely affects water quality and beneficial uses; and

e. The timing and location of the discharge does not cause adverse effects on water quality and beneficial uses that would not occur if the intake water pollutant had been left in the receiving water.

5. **Wastewater that requires treatment prior to discharge**.

a. 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; and

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

IV. General Order Coverage

A. New Discharges

Upon receipt of the complete Notice of Intent, the Executive Officer shall determine the applicability of the proposed discharge to this General Order. If the discharge is deemed eligible for coverage under this General Order, the Executive Officer will issue a Notice of Applicability to the Discharger. The Notice of Applicability will specify that the discharge is authorized under the terms and conditions of this General Order and will prescribe effluent limitations and include a monitoring and reporting program. New discharges that are not covered by an existing individual or general NPDES permit may not commence until issuance of a Notice of Applicability. If the discharge is not eligible for coverage under this General Order, the Executive Officer will notify the Discharger in writing with instructions on how to proceed.

New analytical results must be submitted every 5 years from the date of the NOA, for the pollutants specified in Table I-1 of Attachment I for the type of wastewater discharged.

This General Order shall apply to the individuals, public agencies, private businesses, and other legal entities that have submitted a complete NOI and have received a Notice of Applicability from the Executive Officer.

B. Existing Discharges

Current enrollees authorized to discharge under the existing Limited Threat General Order R5-2013-0073-01 (NPDES Permit No. CAG995002) are automatically authorized under this General Order to continue discharging. However to maintain general order coverage, the current enrollees must submit a complete Notice of Intent (NOI), as described in sections in Attachment J, within 180 days of the adoption date of this Order, to adequately characterize the discharge for coverage under this Order.

New analytical results must be submitted every 5 years, for the pollutants specified in Table I-1 of Attachment I for the type of wastewater discharged. Those dischargers that have not

submitted the suite of analytical results specified in Table I-1 of Attachment I in five years or more must submit the data within 180 days of adoption of this Order.

Upon submittal of an acceptable NOI, the Executive Officer will provide a new Notice of Applicability to existing enrollees that coverage under the General Order will continue, specifying any new and continuing effluent limitations and a monitoring and reporting program. Failure to submit a new and acceptable NOI, as described above, may result in termination of coverage.

C. Changes in Discharge/Coverage

Some permanent changes to the wastewater flow rate, characteristics, and/or treatment system can be covered by revisions to the Notice of Applicability by the Executive Officer.

1. Notify the Executive Officer 60 days prior to planned or expected changes to the wastewater and/or to the treatment system.
2. Notify the Executive Officer within 60 days after receipt of laboratory results indicating unplanned or unexpected changes to wastewater.

Upon receipt of notification from the Discharger regarding changes to the discharge (e.g. submittal of a modified NOI to the Executive Officer), including applicable laboratory analyses, the Executive Officer may issue a revised Notice of Applicability for discharges that continue to qualify for this Order. Revisions to the NOA may include new effluent limitations, removal of effluent limitations, changes to discharge flow rates, and addition or removal of discharge locations. Discharges may continue during this process. When notified by the Executive Officer that an antidegradation analysis is necessary and/or a discharge no longer qualifies for this Order, the Discharger must cease discharge immediately and apply for an individual NPDES permit. Discharge may resume only after receipt of a new individual NPDES permit. See the Fact Sheet for further discussion of anti-backsliding and antidegradation issues.

D. Termination of Discharge/Coverage

Upon completion of treatment (if applicable) and cessation of the discharge, the Discharger shall request, using the Request for Termination of Coverage in Attachment E, official termination of coverage under this General Order from the Executive Officer. Upon approval of this request, the Discharger will no longer be authorized to discharge wastewater covered by this General Order. The Discharger is subject to the terms and conditions of this General Order and is responsible for submitting the annual fee and monitoring reports associated with this General Order until the Discharger receives a Notice of Termination (NOT) from the Executive Officer. Failure to submit the annual fee and monitoring reports may subject the Discharger to mandatory minimum penalties or discretionary penalties.

1. When the Central Valley Water Board issues an individual NPDES permit or Waste Discharge Requirements (WDR's) with more specific requirements to a Discharger, the applicability of this General Order to that Discharger is automatically terminated on the effective date of the individual permit or WDR's.
2. Dischargers with drinking water supply systems authorized to discharge under this General Order who have been granted an exception to the priority pollutant criteria and objectives in the California Toxics Rule (CTR) and SIP, as allowed by section 5.3 of the SIP, must provide certification by a qualified biologist that the beneficial uses of the receiving water have been restored upon completion of the discharge.

E. Expiration of General Order

This General Order will expire 5 years after the effective date (30 January 2022), as specified on the cover page of this General Order. In accordance with 40 C.F.R. section 122.6, if the

permit is not reissued by the expiration date, the conditions of this General Order will continue in force and effect until a new General Order is issued.

F. Ineligible Discharges

The following discharges are ineligible for coverage under this General Order:

1. Discharges containing sewage of human origin;
2. Discharges of acid mine drainage;
3. Discharges to municipal wastewater collection systems; and
4. Discharges to ponds, infiltration basins, spray disposal areas, subsurface infiltration, injection wells, or other methods not involving discharge to surface waters and surface water drainage courses.

G. Screening Levels

Eligible Dischargers enrolling under this General Order are required to analyze the untreated effluent 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 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.

V. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

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

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code. The Central Valley Water Board's actions on issuing this permit for existing and new potable water discharges, and on the exceptions allowed by section 5.3 of the SIP is exempt from CEQA in accordance with California Code of Regulations, Title 14, Section 15061 (b)(3) which states that CEQA only applies to projects which have the potential for causing adverse environmental effects.

To satisfy the Categorical Exception requirements of Section 5.3 of the SIP, Dischargers seeking enrollment under this General Order will be required to submit project-specific information to the Executive Officer on the discharge and its water quality effects. The information required by the SIP is presented in the application requirements contained in section 8 of Attachment J.

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

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

   a. **Basin Plans.** The Central Valley Water Board adopted a Water Quality Control Plan, Fourth Edition (Revised April 2016), for the Sacramento and San Joaquin River Basins and a Water Quality Control Plan, Second Edition (Revised January 2015 with approved amendments), for the Tulare Lake Basin (hereinafter Basin Plans) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plans. In addition, the Basin Plans implement State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. The Basin Plans identify the typical beneficial uses as follows: municipal and domestic supply; agricultural irrigation; stock watering; process supply; service supply; hydropower supply; water contact recreation; canoeing and rafting recreation; other non-contact water recreation; warm freshwater aquatic habitat; cold freshwater habitat; warm fish migration habitat; cold fish migration habitat; warm and cold spawning habitat; wildlife habitat; navigation; rare, threatened, or endangered species habitat; groundwater recharge; and freshwater replenishment.

   b. **Bay-Delta Plan.** The *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary* (Bay-Delta Plan) was adopted in May 1995 by the State Water Board superseding the 1991 Bay-Delta Plan. The Bay-Delta Plan identifies the beneficial uses of the estuary and includes objectives for flow, salinity, and endangered species protection.

      The State Water Board adopted Decision 1641 (D-1641) on 29 December 1999, and revised on 15 March 2000. D-1641 implements flow objectives for the Bay-Delta Estuary, approves a petition to change points of diversion of the Central Valley

Project and the State Water Project in the Southern Delta, and approves a petition to change places of use and purposes of use of the Central Valley Project. The requirements within this Order are consistent with the Bay-Delta Plan.

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

d. **State Implementation Policy.** On 2 March 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on 28 April 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the NTR and to the priority pollutant objectives established by the Central Valley Water Board in the Basin Plan. The SIP became effective on 18 May 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The State Water Board adopted amendments to the SIP on 24 February 2005, that became effective on 13 July 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

   Section 5.3 of the SIP authorizes the Central Valley Water Board, after compliance with CEQA, to allow certain Dischargers short-term or seasonal exceptions from meeting priority pollutant criteria and objectives. This General Order authorizes a categorical exception to priority pollutant criteria and objectives for Dischargers who submit the appropriate information required by the SIP as required in the Notice of Intent (see Attachment J).

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

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

g. **Domestic Water Quality.** In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet

maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.

h. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

D. Other Plans, Policies and Regulations – Not Applicable

VI. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

Effluent limitations and toxic and pretreatment effluent standards established pursuant to sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the CWA and amendments thereto are applicable to the discharge.

The CWA mandates the implementation of effluent limitations that are as stringent as necessary to meet water quality standards established pursuant to state or federal law [33 U.S.C., §1311(b)(1)(C); 40 C.F.R. § 122.44(d)(1)]. NPDES permits must incorporate discharge limits necessary to ensure that water quality standards are met. This requirement applies to narrative criteria as well as to criteria specifying maximum amounts of particular pollutants. Pursuant to federal regulations, 40 C.F.R. section 122.44(d)(1)(i), NPDES permits must contain limits that control all pollutants that "*are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including state narrative criteria for water quality*." Federal regulations, 40 C.F.R. section 122.44(d)(1)(vi), further provide that "[w]*here a state has not established a water quality criterion for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion within an applicable State water quality standard, the permitting authority must establish effluent limits*."

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include WQBEL's to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water where numeric water quality objectives have not been established. The Basin Plan for the Sacramento and San Joaquin River Basins at page IV-17.00 and the Basin Plan for the Tulare Lake Basin at page IV-21, contain implementation policies, "Policy for Application of Water Quality Objectives" and "Application of Water Quality Objectives", respectively, that specify that the Central Valley Water Board "*will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives*." This Policy complies with 40 C.F.R. section 122.44(d)(1). With respect to narrative objectives, the Central Valley Water Board must establish effluent limitations using one or more of three specified sources, including: (1) U.S. EPA's published water quality criteria, (2) a proposed state criterion (i.e., water quality objective) or an explicit state policy interpreting its narrative water quality criteria (i.e., the Central

Valley Water Board's "Policy for Application of Water Quality Objectives")(40 C.F.R. § 122.44(d)(1)(vi)(A), (B) or (C)), or (3) an indicator parameter.

The Basin Plans include numeric site-specific water quality objectives and narrative objectives for toxicity, chemical constituents, discoloration, radionuclides, and tastes and odors. The narrative toxicity objective states: "*All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.*" (narrative toxicity objective) The Basin Plans state that material and relevant information, including numeric criteria, and recommendations from other agencies and scientific literature will be utilized in evaluating compliance with the narrative toxicity objective. The narrative chemical constituents objective states that waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses. At minimum, "…*water designated for use as domestic or municipal supply (MUN) shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs)*" in Title 22 of CCR. The Basin Plans further state that to protect all beneficial uses, the Central Valley Water Board may apply limits more stringent than MCL's. The narrative tastes and odors objective states: "*Water shall not contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to domestic or municipal water supplies or to fish flesh or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses.*"

A. Discharge Prohibitions

1. **Prohibition IV.A (No discharge or application of waste other than that described in this General Order).** This prohibition is based on Water Code section 13260 that requires filing of a report of waste discharge (ROWD) before discharges can occur. Dischargers seeking authorization to discharge under this General Order are required to submit a ROWD as part of the Notice of Intent for the discharges described in this General Order; therefore, discharge of wastes, other than those described in section I.A and meeting the eligibility criteria in sections II.C.1, 2, and 3, of this General Order are prohibited.

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

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

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 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:

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

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

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

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

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

2. Applicable Technology-Based Effluent Limitations

a. Technology-Based Effluent Limitations for Biochemical Oxygen Demand, Total Suspended Solids, and Settleable Solids

The types of discharges authorized by this General Order are described in sections II and III of this Fact Sheet. These types of discharges are considered relatively pollutant-free and pose a low or limited threat to water quality. Based on available effluent data from the limited threat discharges authorized by this General Order, the Central Valley Water Board has established technology-based effluent limitations for biochemical oxygen demand (BOD), total suspended solids (TSS), and settleable solids based on BPJ, as follows.

Table D-2. Technology-Based Effluent Limitations for Biochemical Oxygen Demand, Total Suspended Solids, and Settleable Solids

Parameter	Units	Effluent Limitations	
		Average Monthly	Maximum Daily
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	10	20
Total Suspended Solids	mg/L	10	20
Settleable Solids	mL/L	--	0.1

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.

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

Parameter	Units	Maximum Daily Effluent Limitations
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
1,2-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

Parameter	Units	Maximum Daily Effluent Limitations
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
Chlorobenzene	µg/L	0.5
Chlorodibromomethane	µg/L	0.5
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
Ethylene dibromide (EDB)	µg/L	0.5
MTBE	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

c. Technology-Based Effluent Limitations for 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 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 be established in the NOA for the constituents in Table D-4. The water quality based effluent limitations will be more stringent than the technology-based effluent limitations.

C. Water Quality-Based Effluent Limitations (WQBEL's)

1. Scope and Authority

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

Section 122.44(d)(1)(i) of 40 C.F.R. requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBEL's must be established using: (1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

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

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

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

The Basin Plan for the Sacramento and San Joaquin River Basins on page II-1.00 states: "*Protection and enhancement of existing and potential beneficial uses are primary goals of water quality planning…*" and with respect to disposal of wastewaters states that "...*disposal of wastewaters is [not] a prohibited use of waters of the State; it is merely a use which cannot be satisfied to the detriment of beneficial uses.*" The Basin Plan for the Tulare Lake Basin on page II-1 states: *"Protection and enhancement of beneficial uses of water against quality degradation is a basic requirement of water quality planning under the Porter-Cologne Water Quality Control Act. In setting water quality objectives, the Regional Water Board must consider past, present, and probable future beneficial uses of water."* and with respect to disposal of wastewaters states that "...*use of waters for disposal of wastewaters is not included as a beneficial use…and are subject to regulation as activities that may harm protected uses."*

The federal CWA section 101(a)(2), states: "*it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water be achieved by July 1, 1983.*" Federal Regulations, developed to implement the requirements of the CWA, create a rebuttable presumption that all waters be designated

as fishable and swimmable. Federal Regulations, 40 C.F.R. sections 131.2 and 131.10, require that all waters of the State regulated to protect the beneficial uses of public water supply, protection and propagation of fish, shell fish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation. 40 C.F.R. section 131.3(e) defines existing beneficial uses as those uses actually attained after 28 November 1975, whether or not they are included in the water quality standards. Federal Regulation, 40 C.F.R. section 131.10 requires that uses be obtained by implementing effluent limitations, requires that all downstream uses be protected and states that in no case shall a state adopt waste transport or waste assimilation as a beneficial use for any waters of the United States.

a. **Receiving Water and Beneficial Uses.** The limited threat discharges described in this Order may potentially discharge to any surface water in the Central Valley. Refer to IV.C.1 above for a complete listing of the receiving water beneficial uses. This Order contains both effluent limitations based on the municipal and domestic supply beneficial use and effluent limitations when the municipal and domestic supply beneficial use does not apply.

b. **Effluent Data.** Specific monitoring data is not available to establish effluent limitations that would apply to all potential Dischargers seeking coverage under this General Order. This General Order requires Dischargers seeking authorization to discharge under this General Order to provide analysis of the proposed effluent. As described below, based on these analyses, the Central Valley Water Board will conduct an RPA in accordance with section 1.3, Step 7 of the SIP by comparing the results to the screening levels contained in Attachment I of this General Order. Although the SIP applies directly to the control of CTR priority pollutants, the State Water Board has held that the Central Valley Water Board may use the SIP as guidance for water quality-based toxics control.[1] The SIP states in the introduction "*The goal of this Policy is to establish a standardized approach for permitting discharges of toxic pollutants to non-ocean surface waters in a manner that promotes statewide consistency*." Therefore, in this General Order the RPA procedures from the SIP were used to evaluate reasonable potential for both CTR and non-CTR constituents.

c. **Assimilative Capacity/Mixing Zone.** The effluent limitations for discharges covered by this General Order are calculated assuming no dilution. In most instances, it is assumed that discharges from these operations do not flow directly into a receiving water with significant volume to consider dilution credit or to allocate a mixing zone. Many creeks and streams in the Central Valley are dry during the summer months. Therefore, for many months of the year, these discharges may represent all or nearly all of the flow in some portions of the receiving creeks or streams. Because this General Order is intended to serve as a general order and covers discharges to all surface waters in the Central Valley, the effluent limitations established pursuant to this General Order are established to achieve the most protective water quality objective for the surface water beneficial uses in the Central Valley. Therefore, it is assumed there is no assimilative capacity and no dilution credits have been granted.

   An exception to this assumption may be applied based on the demonstration of a mixing zone in accordance with section 1.4.2 of the SIP and an approved mixing zone study demonstrating compliance with water quality objectives in the receiving water as prescribed in the Basin Plans. This exception process is more appropriate for an individual order, and would not be appropriate for a general order, that should

[1] See Order WQO 2001-16 (Napa) and Order WQO 2004-0013 (Yuba City).

be protective of most stringent water quality objectives and beneficial uses. If a Discharger requests that a dilution credit be included in the computation of an effluent limitation or that a mixing zone be allowed, an individual order will be required. However, if no mixing zone is proposed, this General Order provides coverage for all discharges to receiving waters in the Central Valley Region.

d. Conversion Factors. The CTR contains aquatic life criteria for arsenic, cadmium, chromium III, chromium VI, copper, lead, nickel, silver, and zinc which are presented in dissolved concentrations. U.S. EPA recommends conversion factors to translate dissolved concentrations to total concentrations. The default U.S. EPA conversion factors contained in Appendix 3 of the SIP were used to convert the applicable dissolved criteria to total recoverable criteria.

e. Hardness-Dependent CTR Metals Criteria. The CTR and the NTR contain water quality criteria for seven metals that vary as a function of hardness. The lower the hardness the lower the water quality criteria. The metals with hardness-dependent criteria include cadmium, copper, chromium III, lead, nickel, silver, and zinc. While no effluent limitation for hardness is necessary in this Order, hardness is critical to the assessment of the need for, and the development of, effluent limitations for the hardness-dependent metals.

This General Order has established the criteria for hardness-dependent metals based on the hardness of the receiving water (actual ambient hardness) as required by the SIP[1] and the CTR[2]. The SIP and the CTR require the use of "receiving water" or "actual ambient" hardness, respectively, to determine effluent limitations for these metals. The CTR requires that the hardness values used shall be consistent with the design discharge conditions for design flows and mixing zones[3]. The CTR does not define the term "ambient," as applied in the regulations. Therefore, the Central Valley Water Board has considerable discretion to consider upstream and downstream ambient conditions when establishing the appropriate water quality criteria that fully complies with the CTR and SIP.

The State Water Board provided direction regarding the selection of hardness in two precedential water quality orders; WQO 2008-0008 for the City of Davis Wastewater Treatment Plant (Davis Order) and WQO 2004-0013 for the Yuba City Wastewater Treatment Plant (Yuba City Order). The State Water Board recognized that the SIP and the CTR do not discuss the manner in which hardness is to be ascertained, thus regional water boards have considerable discretion in determining ambient hardness so long as the selected value is protective of water quality criteria under the given flow conditions. (Davis Order, p.10). The State Water Board explained that it is necessary that, "*The* [hardness] *value selected should provide protection for all times of discharge under varying hardness conditions*." (Yuba City Order, p. 8). The Davis Order also provides that, "*Regardless of the hardness used, the resulting limits must always be protective of water quality criteria under all flow conditions*." (Davis Order, p. 11)

The equation describing the total recoverable regulatory criterion, as established in the CTR, is as follows:

[1] The SIP does not address how to determine the hardness for application to the equations for the protection of aquatic life when using hardness-dependent metals criteria. It simply states, in Section 1.2, that the criteria shall be properly adjusted for hardness using the hardness of the receiving water.

[2] The CTR requires that, for waters with a hardness of 400 mg/L (as $CaCO_3$), or less, the actual ambient hardness of the surface water must be used (40 C.F.R. § 131.38(c)(4)).

[3] 40 C.F.R. §131.3(c)(4)(ii)

$$\text{CTR Criterion} = \text{WER} \times (e^{m[\ln(H)]+b}) \qquad \text{(Equation 1)}$$

Where:

H = ambient hardness (as $CaCO_3$) [1]

WER = water-effect ratio

m, b = metal- and criterion-specific constants

The direction in the CTR regarding hardness selection is that it must be based on ambient hardness and consistent with design discharge conditions for design flows and mixing zones. Consistent with design discharge conditions and design flows means that the selected "design" hardness must result in effluent limitations under design discharge conditions that do not result in more than one exceedance of the applicable criteria in a three year period.[2] Effluent limitations for the discharge must be set to protect the beneficial uses of the receiving water for all discharge conditions. Effluent limitations must be set using a reasonable worst-case condition in order to protect beneficial uses for all discharge conditions. Use of the lowest observed ambient hardness is protective of aquatic life beneficial uses.

Ambient hardness may be variable. Because of the variation, there is no single hardness value that describes the ambient receiving water for all possible scenarios (e.g., minimum, maximum, mid-point). While the hardness selected must be the hardness of the ambient receiving water, selection of an ambient receiving water hardness that is too high would result in effluent limitations that do not protect beneficial uses. Also, the use of minimum ambient hardness would result in criteria that may not be representative considering the wide range of ambient conditions.

This General Order includes effluent limitations for cadmium, chromium (III), copper, lead, nickel, silver, and zinc which are dependent on water hardness. The CTR expresses the objectives for these metals through equations where the hardness of the receiving water is a variable. To simplify the permitting process for this General Order, it was necessary that fixed hardness values be used in these equations.

This General Order requires Dischargers to analyze the effluent for hardness. The Discharger shall submit the analytical results with the Notice of Intent. Upon approval of the Executive Officer, these hardness values will be used to determine the effluent limitations from the appropriate table of limits (see section V.A.1.g, Tables 6A through 6G) of this General Order. Tables 6A through 6G contain effluent limitations for cadmium, chromium III, copper, lead, nickel, silver, and zinc with ranges of hardness between 0 mg/L and 400 mg/L.

3. Determining the Need for WQBEL's

a. All Limited Threat Discharges. Effluent limitations must be established for discharges that have the reasonable potential to exceed water quality standards. Since this is a General Order for all limited threat discharges to surface waters in the Central Valley of California, specific data are not available to establish generic effluent limitations. Therefore, screening levels are established in Attachment I of this General Order for pollutants, constituents, and parameters, and are based on the most protective water quality criteria, including CTR criteria and MCL's. The Discharger is required to analyze a representative sample of the discharge as specified in Table I-1 of Attachment I. If the analytical data demonstrate that

[1] For this discussion, all hardness values are expressed in mg/L as $CaCO_3$.
[2] 40 C.F.R. §131.38(c)(2)(iii) Table 4, notes 1 and 2

constituent concentrations in the discharge exceed the screening levels also listed in Attachment I of this General Order, the discharge will be enrolled under Tier 2 and treatment will be required. The respective effluent limitations, as calculated in section V.A.1 below, shall be applicable to the discharge, as specified in the Notice of Applicability (NOA) from the Executive Officer. If the analytical data demonstrate that constituent concentrations in the discharge are below the screening levels listed in Attachment I of this General Order, the discharge will be authorized for coverage under Tier 1 of this General Order and water quality-based effluent limitations will not be applicable to the discharge. Hard rock mines will be enrolled under Tier 3 of this General Order and treatment and water quality-based effluent limitations will be applied as necessary.

b. Priority Pollutants. Most priority pollutants have applicable CTR criteria or maximum contaminant levels (MCL's) and therefore, water quality limits have been developed. The Notice of Applicability (NOA) will specify whether the effluent limitations apply for a specific discharger. Several priority pollutants do not have applicable CTR criteria or maximum contaminant levels (MCL's). However, water quality limits have been developed to interpret narrative Basin Plan objectives for several of these pollutants which include chloroethane, methyl chloride, 2-nitrophenol, 4-nitrophenol, 3-methyl-4-chlorophenol, 4-bromophenyl phenyl ether, 2,6-dinitrotoluene, naphthalene, and delta-BHC. Analysis of dilution, proximity of downstream diversions, and other factors is required in order to determine the applicability of interpreting the narrative objective for these pollutants based on water quality limits. This type of analysis is beyond the scope of this General Order. In addition to these pollutants, several priority pollutants have no CTR criteria, MCL's, or alternative water quality limits to interpret narrative Basin Plan objectives. These pollutants include 2-chloroethylvinyl ether, acenaphthylene, benzo(ghi)perylene, bis(2-chloroethoxy)methane, 4-chlorophenyl phenyl ether, di-n-octyl phthalate, and pheneanthrene. Results of effluent sampling for priority pollutants, including those that do not have applicable water quality criteria, is required in Attachment C. If detectable concentrations of these pollutants are present in the discharge, additional effluent and ambient receiving water monitoring may be established, as specified in the Notice of Applicability from the Executive Officer. The additional monitoring would be used to determine if the discharge is adversely impacting a beneficial use (i.e., violating Receiving Water Limitations in section VIII.A). If the discharge is found to be adversely affecting beneficial uses, the Central Valley Water Board would take the appropriate enforcement actions, terminate coverage for the discharge under this General Order, and/or take other actions to resolve the violation.

c. Constituents with Numeric Water Quality Objectives. The Basin Plans contain numeric water quality objectives. Some objectives apply to all waterbodies within the applicable basins, whereas others apply only to certain waterbodies. This General Order requires effluent sampling for those Priority Pollutant constituents with applicable numeric water quality objectives in the Basin Plans. If the analytical data demonstrate that constituent concentrations in the discharge exceed an applicable numeric water quality objective from the Basin Plan, treatment will be required and an effluent limitation shall be applied, as specified in the Notice of Applicability (NOA) from the Executive Officer.

d. Aluminum. Aluminum is the third most abundant element in the earth's crust and is ubiquitous in both soils and aquatic sediments. When mobilized in surface waters, aluminum has been shown to be toxic to various fish species. However, the potential for aluminum toxicity in surface waters is directly related to the chemical form of

aluminum present, and the chemical form is highly dependent on water quality characteristics that ultimately determine the mechanism of aluminum toxicity. Surface water characteristics, including pH, temperature, colloidal material, fluoride and sulfate concentrations, and total organic carbon, all influence aluminum speciation and its subsequent bioavailability to aquatic life. Calcium [hardness] concentrations in surface water may also reduce aluminum toxicity by competing with monomeric aluminum (Al3+) binding to negatively charged fish gills.

State of California Department of Public Health (DPH) has established Secondary Maximum Contaminant Levels (MCLs) to assist public drinking water systems in managing their drinking water for aesthetic conditions such as taste, color, and odor. The Secondary MCL for aluminum is 200 µg/L for protection of the MUN beneficial use. Title 22 requires compliance with Secondary MCLs on an annual average basis.

The Code of Federal Regulations promulgated criteria for priority toxic pollutants for California's surface waters as part of section 131.38 Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California (California Toxics Rule or CTR), including metals criteria. However, aluminum criteria were not promulgated as part of the CTR. Absent numeric aquatic life criteria for aluminum, WQBEL's in the Central Valley Region's NPDES permits are based on the Basin Plans' narrative toxicity objective. The Basin Plans' *Policy for Application of Water Quality Objectives* requires the Central Valley Water Board to consider, "*on a case-by-case basis, direct evidence of beneficial use impacts, all material and relevant information submitted by the discharger and other interested parties, and relevant numerical criteria and guidelines developed and/or published by other agencies and organizations. In considering such criteria, the Board evaluates whether the specific numerical criteria which are available through these sources and through other information supplied to the Board, are relevant and appropriate to the situation at hand and, therefore, should be used in determining compliance with the narrative objective*." Relevant information includes, but is not limited to (1) USEPA Ambient Water Quality Criteria (NAWQC) and subsequent Correction, (2) site-specific conditions of Auburn Ravine, the receiving water, and (3) site-specific aluminum studies conducted by dischargers within the Central Valley Region, which includes the City of Auburn WWTP and Auburn Ravine. (Sacramento River Basin and San Joaquin Basin Plan, p. IV.17.00; see also, 40 CFR 122.44(d)(vi).)

USEPA recommended the NAWQC aluminum acute criterion at 750 µg/L based on test waters with a pH of 6.5 to 9.0. USEPA also recommended the NAWQC aluminum chronic criterion at 87 µg/L based upon toxicity tests. All test waters contained hardness at 12 mg/L as $CaCO_3$.

This General Order contains screening levels for aluminum of 200 µg/L when the MUN beneficial use is applicable or 750 µg/L when the MUN beneficial use is not applicable. This Order also contains effluent limitations for aluminum based on the criteria discussed above. Based on the monitoring requirements, if the proposed discharge contains concentrations of aluminum above the screening levels and the discharge is planned for more than one year, the Notice of Applicability may include aluminum effluent limitations and a requirement for treatment of aluminum.

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, 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.

g. Manganese. The Secondary MCL – Consumer Acceptance Limit for manganese is 50 µg/L, 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.

h. Metals, Hardness-Dependent. The California Toxics Rule (CTR) includes hardness-dependent criteria for the protection of freshwater aquatic life for cadmium, chromium III, copper, lead, nickel, silver, and zinc. See the discussion regarding hardness, above.

This General Order contains screening levels for hardness-dependent metals (see Attachment I, section II.C). This Order also contains effluent limitations for hardness-dependent metals based on the criteria discussed above (see section V.A.1.g Tables 6A through 6G of this Order). Based on the monitoring requirements, if the proposed discharge contains concentrations of hardness-dependent metals above the screening levels, the Notice of Applicability may include effluent limitations for hardness-dependent metals and a requirement for treatment.

i. Nitrate, Nitrite, and Nitrate plus Nitrite. The State Water Board, Division of Drinking Water (DDW) has adopted a Primary MCL for the protection of human health for nitrate equal to 10 mg/L (measured as nitrogen). U.S. EPA has developed Drinking Water Standards (10 mg/L as Primary MCL) and National Ambient Water Quality Criteria (NAWQC) for protection of human health (10 mg/L for non-cancer health effects) for nitrate. The DDW has adopted a Primary MCL for the protection of human health for nitrite equal to 1 mg/L (measured as nitrogen). DDW has also adopted a Primary MCL of 10 mg/L for the sum of nitrate and nitrite, measured as nitrogen. USEPA has developed a primary MCL and an MCL goal of 1 mg/L for nitrite (as nitrogen).

Treated groundwater and other types of limited threat wastewaters covered by this Order may contain concentrations of nitrate plus nitrite that exceed the Primary MCL for nitrate plus nitrite.

This General Order contains a screening level for nitrate plus nitrite of 10 mg/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 nitrate plus nitrite based on the criteria discussed above. Based on the monitoring requirements, if the proposed discharge contains concentrations of nitrate plus nitrite above the screening level, the Notice of Applicability may include a nitrate plus nitrite effluent limitation and a requirement for treatment.

j. pH. The Sacramento and San Joaquin River Basin Plan and the Tulare Lake Basin Plan contain the following pH water quality objectives:

i. The pH of all discharges within the Sacramento and San Joaquin River Basins (except Goose Lake in Modoc County) shall at all times be within the range of 6.5 and 8.5.

ii. The pH of all discharges to Goose Lake in Modoc County shall at all times be within the range of 7.5 and 9.5.

iii. The pH of all discharges within the Tulare Lake Basin shall at all times be within the range of 6.5 and 8.3.

This General Order contains screening levels for pH and effluent limitations for pH based on the criteria discussed above. Based on the monitoring requirements, if the proposed discharge contains pH outside the screening levels, the Notice of Applicability will include a requirement for treatment of pH.

k. Pesticides. The Sacramento and San Joaquin River Basin Plan and the Tulare Lake Basin Plan contain the following water quality objectives for pesticides:

i. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the discharge at concentrations detectable within the accuracy of analytical methods approved by USEPA or the Executive Officer for the Sacramento and San Joaquin River Basins or prescribed in Standard Methods for the Examination of Water and Wastewater, 18th Edition, or other equivalent methods approved by the Executive Officer for the Tulare Lake Basin.

ii. Thiobencarb shall not be discharged in excess of 1.0 µg/L for the Sacramento and San Joaquin River Basins.

iii. For other pesticides not listed here, see the Pesticide Water Quality Objective in the Basin Plan.

This General Order contains screening levels for pesticides and effluent limitations for pesticides based on the criteria discussed above. Based on the monitoring requirements, if the proposed discharge contains pesticide concentrations above the effluent limitations, the Notice of Applicability may include pesticide effluent limitations and a requirement for treatment of pesticides.

I. 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, 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. 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.

m. Total Residual Chlorine. USEPA developed NAWQC for protection of freshwater aquatic life for chlorine residual. The recommended 4-day average (chronic) and 1-hour average (acute) criteria for chlorine residual are 0.011 mg/L and 0.019 mg/L, respectively. These criteria are protective of the Basin Plan's narrative toxicity objective.

This General Order does not contain screening levels for chlorine residual. However, this Order does contain effluent limitations for residual chlorine based on the criteria discussed above. Based on the monitoring requirements, if the proposed discharge contains concentrations of chlorine residual above the effluent limitations, the Notice of Applicability will include total residual chlorine effluent limitations and a requirement for treatment.

The San Francisco Bay Regional Water Quality Control Board (San Francisco Water Board) included a reporting level (RL) of 0.08 mg/L to determine compliance with the effluent limitations contained in the *General Order for Discharges from Surface Water Treatment Facilities for Potable Supply* (Order R2-2003-0062, NPDES No. CAG382001). The RL of 0.08 mg/L represents a level that handheld field meters are capable of achieving. The Central Valley Water Board concurs with the approach used by the San Francisco Water Board. Therefore, this General Order requires dischargers to utilize a method capable of achieving a RL of 0.08 mg/L, consistent with the RL required by the San Francisco Water Board, until the State Water Board adopts a statewide policy with a specified RL achievable in the field and laboratory. A reopener has been included that will allow the Central Valley Water Board to reopen this General Order if a statewide policy for total residual chlorine takes effect during the term of the permit, to allow the Central Valley Water Board to make modifications consistent with the statewide policy.

n. Limited Threat Discharges to Specific Waterbodies. The Basin Plans establish specific water quality criteria for discharges to specific watersheds/reaches and are included as screening levels in Attachment I, section III. If the discharge is within an applicable watershed/reach included in Attachment I, section III, the Discharger is required to analyze a representative sample of the discharge for the applicable pollutants. The screening levels contained in Attachment I, section III supersede those contained in Attachment I, section II for respective parameters applicable to

the discharge. If the analytical data demonstrate that constituent concentrations in the discharge exceed the water quality screening levels listed in Attachment I, section III, treatment will be required and the respective effluent limitations shall apply in addition to applicable effluent limitations established due to exceedances of the screening levels for additional parameters contained in Attachment I, section II, as specified in the Notice of Applicability from the Executive Officer.

4. WQBEL Calculations

a. This General Order includes WQBEL's for Priority Pollutants, constituents with numeric water quality objectives discharged to specific water bodies, aluminum, ammonia, iron, manganese, nitrate, nitrite, pH, pesticides,and total residual chlorine. The general methodology for calculating WQBEL's based on the different criteria/objectives is described in subsections VI.C.4.b through d of this Attachment, directly below.

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

$$ECA = C + D(C - B) \qquad \text{where } C>B, \text{ and}$$
$$ECA = C \qquad \text{where } C \leq B$$

where:

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

According to the SIP, the ambient background concentration (B) in the equation above shall be the observed maximum with the exception that an ECA calculated from a priority pollutant criterion/objective that is intended to protect human health from carcinogenic effects shall use the arithmetic mean concentration of the ambient background samples. For ECA's based on MCL's, which implement the Basin Plan's chemical constituents objective and are applied as annual averages, an arithmetic mean is also used for B due to the long-term basis of the criteria.

c. Aquatic Toxicity Criteria. WQBEL's based on acute and chronic aquatic toxicity criteria are calculated in accordance with Section 1.4 of the SIP. The ECA's are converted to equivalent long-term averages (i.e. LTA_{acute} and $LTA_{chronic}$) using statistical multipliers and the lowest LTA is used to calculate the AMEL and MDEL using additional statistical multipliers.

d. Human Health Criteria. WQBEL's based on human health criteria, are also calculated in accordance with Section 1.4 of the SIP. The AMEL is set equal to the ECA and a statistical multiplier was used to calculate the MDEL.

$$AMEL = mult_{AMEL}\left[\min\left(\overbrace{M_A ECA_{acute}}^{LTA_{acute}}, M_C ECA_{chronic}\right)\right]$$

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

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

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

5. Whole Effluent Toxicity (WET)

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 are low volume, 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. 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 as directed by the Executive Officer in the Notice of Applicability thereafter, 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 chronic toxicity 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, the Discharger is required to submit a ROWD for issuance of an individual NPDES permit.

D. Final Effluent Limitation Considerations

1. Mass-based Effluent Limitations

40 C.F.R section 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 C.F.R. section 122.45(f)(2) allows pollutants that are limited in terms of mass to additionally be limited in terms of other units of measurement. This Order does not include effluent limitations expressed in terms of mass pursuant to the exceptions to mass limitations provided in 40 CF.R. section 122.45(f)(1) because the applicable standards are expressed in terms of concentration (e.g., CTR criteria and MCL's) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

However, when a Discharger is granted an intake water credit for a pollutant the effluent limits for that pollutant are based on a no net addition of the pollutant. Therefore, the effluent limits are based on mass (i.e., the pollutant mass in the effluent may not exceed the pollutant mass in the intake water.

2. Averaging Periods for Effluent Limitations

40 C.F.R. section 122.45(d) requires maximum daily and average monthly discharge limitations for all dischargers unless impracticable.

3. Satisfaction of Anti-Backsliding Requirements – Removal of Salinity Effluent Limits

The CWA specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in CWA sections 402(o) or 303(d)(4), or, where applicable, 40 C.F.R. section 122.44(l).

All effluent limitations in this Order are at least as stringent as the effluent limitations in previous Order R5-2013-0073-01, except for electrical conductivity. Previous Order R5-2013-0073-01 contained effluent limitations for electrical conductivity of 700 µmhos/cm for groundwater treatment systems only where the agricultural irrigation beneficial use is applicable and 900 µmhos/cm where it is not applicable. This Order contains no effluent limitations for electrical conductivity. However, this Order does require that Dischargers 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.

CWA section 402(o)(1) and 303(d)(4). CWA section 402(o)(1) prohibits the establishment of less stringent water quality-based effluent limits "*except in compliance with Section 303(d)(4).*" CWA section 303(d)(4) has two parts: paragraph (A) which applies to nonattainment waters and paragraph (B) which applies to attainment waters.

a. For waters where standards are not attained, CWA section 304(d)(4)(A) specifies that any effluent limit based on a TMDL or other WLA may be revised only if the

cumulative effect of all such revised effluent limits based on such TMDL's or WLAs will assure the attainment of such water quality standards.

b. 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.

Nonattainment Waters. Various water bodies within the Sacramento River and San Joaquin River Basins and the Tulare Lake Basin are considered nonattainment waters for salinity and/or electrical conductivity. The salinity and/or electrical conductivity effluent limitations in previous Order R5-2013-0073-01 were not based on TMDLs or other WLAs. In addition the cumulative effect of eliminating the effluent limits will be negligible as TMDLs or WLAs will assure the attainment of such water quality standards. Thus, removal of the effluent limitations for salinity and/or electrical conductivity from this Order meets the exception in CWA section 303(d)(4)(A).

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.

Attainment Waters. Various water bodies within the Sacramento River and San Joaquin River Basins and the Tulare Lake Basin are considered attainment waters for salinity and/or electrical conductivity because the receiving water is not listed as impaired on the 303(d) list for this constituent.[1] As discussed in section VI.D.5, below, removal of the effluent limits complies with federal and state antidegradation requirements. Thus, removal of the effluent limitations for salinity and/or electrical conductivity from this Order meets the exception in CWA section 303(d)(4)(B).

For the purposes of meeting either of the exceptions above, a receiving water shall be considered an attainment water if the receiving water is not listed as impaired on the 303(d) list for the constituent.[2]

4. Satisfaction of Anti-Backsliding Requirements – Effluent Limitation Modifications in the NOA

If new monitoring results show that a constituent is not detected for a minimum of 1 year, then the Notice of Applicability may be modified to remove or modify the effluent limitation for that constituent in accordance with this General Order and as allowed under CWA section 402(o)(2).

CWA section 402(o)(2). CWA section 402(o)(2) provides several exceptions to the anti-backsliding regulations. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. The Notice of Applicability may remove or relax effluent limitations where the removal or relaxation complies with any of these exceptions.

[1] "The exceptions in Section 303(d)(4) address both waters in attainment with water quality standards and those not in attainment, i.e. waters on the section 303(d) impaired waters list." State Water Board Order WQ 2008-0006, Berry Petroleum Company, Poso Creek/McVan Facility.

[2] "The exceptions in Section 303(d)(4) address both waters in attainment with water quality standards and those not in attainment, i.e. waters on the section 303(d) impaired waters list." State Water Board Order WQ 2008-0006, Berry Petroleum Company, Poso Creek/McVan Facility.

One of these exceptions, CWA 402(o)(2)(B)(i), allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. Updated information that may be used to satisfy this exception include updated effluent and receiving water monitoring data collected subsequent to the issue date of the NOA that indicates that the discharge no longer exhibits reasonable potential to cause or contribute to an exceedance of water quality objectives/criteria.

5. Antidegradation Policies

The permitted discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. Due to the expected short-term duration, low volume, and/or low threat nature of the wastewater regulated under this General Order, the impact on existing water quality will be insignificant. This Order requires monitoring of all wastewater proposed for discharge prior to allowing the discharge. This Order requires all wastewater that requires treatment to be monitored before discharge is allowed. This Order requires all Tier 1B, Tier 2, and Tier 3 dischargers to conduct chronic toxicity testing. This Order requires all Tier 2 and Tier 3 dischargers to conduct acute toxicity testing and to develop and implement Best Management Practices in order to prevent the generation and potential release of pollutants to receiving waters. If, however, the Central Valley Water Board, subsequent to review of any application, finds that the impact of a discharge will not be insignificant, then authorization for coverage under this General Order will be denied and coverage under an individual permit will be required (including preparation of an anti-degradation analysis).

Some permanent changes to the wastewater flow rate, characteristics, and/or treatment system can be covered by revisions to the Notice of Applicability by the Executive Officer.

Upon receipt of notification from the Discharger regarding changes to the discharge (e.g. submittal of a modified NOI to the Executive Officer), including applicable laboratory analyses, the Executive Officer may issue a revised Notice of Applicability for discharges that continue to qualify for this Order. Revisions to the NOA may include new effluent limitations, removal of effluent limitations, changes to discharge flow rates, and addition or removal of discharge locations. Discharges may continue during this process. When notified by the Executive Officer that an antidegradation analysis is necessary and/or a discharge no longer qualifies for this Order, the Discharger must apply for an individual NPDES permit.

This General Order allows updated NOAs to remove existing effluent limitations for constituents in which updated monitoring data demonstrate that the effluent does not cause or contribute to an exceedance of the applicable water quality criteria or objectives in the receiving water. The Central Valley Water Board finds that the modification of the NOA for removal of effluent limitations will not result in an allowed increase in pollutants or any additional degradation of the receiving water. Thus, the removal of effluent limitations is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

This General Order requires compliance with applicable federal technology-based standards and with WQBELs where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. Some Dischargers

may be granted an intake water credit to account for pollutants in the intake water. Implementation of an intake water credit in accordance with the SIP allows a Discharger to discharge a mass and concentration of the intake water pollutants that is no greater than the mass and concentration found in the facility's intake water. If a Discharger adds mass of a pollutant to its waste stream, an equal or greater mass must be removed prior to discharge, resulting in no net addition of the pollutant in the discharge compared to the intake water.

6. **Summary of Final Effluent Limitations.** See Limitations and Discharge Requirements Section V.A for Water Quality-Based Effluent Limitations and Section V.B for Technology-Based Effluent Limitations. Screening levels are in Attachment I.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Recycling Specifications – Not Applicable

VII. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

1. CWA section 303(a-c), requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The Central Valley Water Board adopted water quality criteria as water quality objectives in the Basin Plans. The Basin Plans state that "[t]*he numerical and narrative water quality objectives define the least stringent standards that the Regional Water Board will apply to regional waters in order to protect the beneficial uses.*" The Basin Plans includes numeric and narrative water quality objectives for various beneficial uses and water bodies. This General Order contains receiving surface water limitations based on the Basin Plan numerical and narrative water quality objectives for ammonia, bacteria, biostimulatory substances, color, chemical constituents, dissolved oxygen, floating material, oil and grease, pH, pesticides, radioactivity, suspended sediment, settleable substances, suspended material, tastes and odors, temperature, toxicity, and turbidity.

B. Groundwater – Not Applicable

VIII. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) of 40 C.F.R. allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

a. Regional Monitoring Program. The Central Valley Water Board is developing a Regional Monitoring Program for the Sacramento-San Joaquin Delta. This Order may be reopened to modify the monitoring requirements to implement the Regional Monitoring Program.

b. Drinking Water Policy. On 26 July 2013 the Central Valley Water Board adopted Resolution No. R5-2013-0098 amending the Basin Plan and establishing a Drinking Water Policy. The State Water Board approved the Drinking Water Policy on 3 December 2013. This Order may be reopened to incorporate monitoring of drinking water constituents to implement the Drinking Water Policy.

c. Total Residual Chlorine. The State Water Board has developed a draft policy, which, when adopted, is intended to establish consistent standards and implementation procedures for regulating chlorine state-wide. This reopener allows the Central Valley Water Board to reopen this General Order to include a revised RL to determine compliance with effluent limitations for total residual chlorine if a state-wide policy for total residual chlorine is adopted during the term of this General Order.

2. Special Studies and Additional Monitoring Requirements

a. Chronic Whole Effluent Toxicity Requirements. The Basin Plan contains 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 Sacrament and San Joaquin River Basins at page III-8.00 and Basin Plan for the Tulare Lake Basin at page III-6.) If through chronic WET testing it is demonstrated that the discharge exceeds the numeric toxicity trigger, the Discharger is required to submit a ROWD for application of an individual NPDES permit.

The Monitoring and Reporting Program of this Order requires chronic WET monitoring for demonstration of compliance with the narrative toxicity objective. In addition to WET monitoring, this provision includes a numeric toxicity monitoring trigger, requirements for accelerated monitoring, and instructions if a pattern of toxicity is demonstrated.

Monitoring Trigger. A numeric toxicity monitoring trigger of >1 TUc, or as specified by the Executive Officer in the NOA (where TUc = 100/NOEC), is applied in the provision, because this General Order does not allow any dilution for the chronic condition.

Accelerated Monitoring. The provision requires accelerated WET testing when a regular WET test result exceeds the monitoring trigger. The purpose of accelerated monitoring is to determine, in an expedient manner, whether there is toxicity before proceeding with further requirements. Due to possible seasonality of the toxicity, the accelerated monitoring should be performed in a timely manner, preferably taking no more than 2 to 3 months to complete.

The provision requires accelerated monitoring consisting of four chronic toxicity tests in a six-week period (i.e., one test every two weeks) using the species that exhibited toxicity. Guidance regarding accelerated monitoring is provided in the *Technical Support Document for Water Quality-based Toxics Control,* EPA/505/2-90-001, March 1991 (TSD). The TSD at page 118 states, "*EPA recommends if*

toxicity is repeatedly or periodically present at levels above effluent limits more than 20 percent of the time, a TRE should be required." Therefore, four accelerated monitoring tests are required in this provision. If no toxicity is demonstrated in the four accelerated tests, then it demonstrates that toxicity is not present at levels above the monitoring trigger more than 20 percent of the time (only 1 of 5 tests are toxic, including the initial test).

b. Pollution Prevention and Monitoring and Reporting Plan (PPMRP). Water suppliers may have numerous intentional and unintentional releases of fresh water to surface waters and surface water drainage courses due to many factors, including system failures, pressure releases, and pipeline/tank flushing and dewatering. For the purposes of this General Order, these multiple discharges shall be considered a project. Water suppliers covered by this General Order may include irrigation districts, water districts, and water agencies. In lieu of the specific effluent and receiving water monitoring requirements included in the Monitoring and Reporting Program (Attachment C), water suppliers with more than one discharge point must develop and implement a PPMRP in accordance with the requirements of Attachment G.

3. Best Management Practices and Pollution Prevention

a. Best Management Practices. Because of the expected diversity of limited threat discharges covered by this General Order, specific technology-based effluent limitations for the universe of toxic compounds that could be found in wastewater have not been established. As allowed under 40 C.F.R. section 122.44(k).

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.

4. Construction, Operation, and Maintenance Specifications – Not Applicable

5. Special Provisions for Municipal Facilities (POTW's Only) – Not Applicable

6. Other Special Provisions

a. This General Order requires collected screenings and other solids removed from liquid wastes to be disposed of in a manner that is consistent with Chapter 15, Division 3, Title 23 of the CCR and approved by the Executive Officer.

This Order also requires any proposed change in solids use or disposal practice to be reported to the Executive Officer and U.S. EPA Regional Administrator at least 90 days in advance of the change.

7. Compliance Schedules – Not Applicable

IX. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Valley Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment C of this Order establishes monitoring, reporting, and recordkeeping requirements that

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

A. Influent Monitoring for Dischargers with Intake Water Credits

1. Dischargers that have been granted an intake water credit in the NOA must monitor the influent for each applicable pollutant. Influent samples must be taken concurrent with effluent samples. Due to the site-specific situation for each Discharger that is granted an intake water credit, the NOA will specify the sample type and frequency that will ensure adequate representation of the influent pollutant mass and concentrations.

2. Where multiple intake water sources are used and an intake water credit is granted, the influent flow from each source must be monitored to calculate a flow-weighted influent concentration. In accordance with the SIP, the pollutant from the receiving water shall be assumed to have a concentration that is no greater than the concentration in the Discharger intake water. Therefore, monitoring of the intake water from the receiving body must be performed for each pollutant. The pollutant concentrations from intake sources other than the receiving water are assumed to have a concentration that is no greater than the most stringent applicable water quality objective. Therefore, monitoring for hardness of the intake water from the receiving water body is also required when the effluent is monitored to derive the most stringent water quality objective for one or more of the hardness-dependent metals contained in the CTR (cadmium, chromium III, copper, lead, nickel, silver, and zinc) and/or applicable Basin Plan. Due to the site-specific situation for each Discharger that is granted an intake water credit, the NOA will specify the sample type and frequency that will ensure adequate representation of the influent pollutant mass and concentrations.

B. Effluent Monitoring

1. Pursuant to the requirements of 40 C.F.R. section 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations, assess the effectiveness of the treatment process, and to assess the impacts of the discharge on the receiving stream and groundwater.

2. The Executive Officer will specify varying monitoring frequencies in the discharge-specific Notice of Applicability because of the expected diversity of discharges and the uncertainty of the length of time associated with each discharge. The following effluent monitoring requirements may be included in the Notice of Applicability:

a. Monitoring for flow (when discharging).

b. Monitoring for electrical conductivity and/or total dissolved solids to characterize the salinity of the effluent.

c. Monitoring for priority pollutants to determine compliance with applicable effluent limitations. Monitoring for hardness is also required if effluent limitations for cadmium, chromium (III), copper, lead, nickel, silver, and/or zinc are applicable.

d. Monitoring for pH using grab samples to determine compliance with effluent limitations, if applicable.

e. Monitoring for total residual chlorine using grab samples is established for all low threat discharges and superchlorination project discharges to determine compliance with effluent limitations. As discussed in section VI.C.3 of this Fact Sheet, the Central Valley Water Board acknowledges the complications of achieving relatively low RL's in field locations. This General Order allows Dischargers to use handheld monitoring devices to monitor total residual chlorine in the effluent. This General

Order also requires Dischargers to utilize a method capable of achieving an RL of 0.08 mg/L until the State Water Board adopts a state-wide policy with a specified reporting level achievable in the field and laboratory. The RL of 0.08 mg/L represents a level that hand-held field meters are capable of achieving.

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

3. Dischargers that have been granted an intake water credit in the NOA must monitor the effluent for each applicable pollutant. Effluent samples must be taken concurrent with influent samples. Due to the site-specific situation for each Discharger that is granted an intake water credit, the NOA will specify the sample type and frequency that will ensure adequate representation of the effluent pollutant mass and concentration.

C. Whole Effluent Toxicity Testing Requirements

1. Low Volume Exemption from Acute and Chronic Toxicity Monitoring. Individuals and miscellaneous public and private businesses often need to discharge clean or relatively pollutant-free wastewaters that pose little or no threat to water quality. These discharges are typically low volume discharges (i.e., less than 0.25 million gallons fall under Tier 1A) and/or short-term in nature (i.e., 4 months or less fall under Tier 1A). The SIP, in section 1.3, *Step 8*, paragraph 2, states that the Central Valley Water Board may choose to exempt low volume discharges, determined to have no significant adverse impact on water quality, from certain monitoring requirements. In this General Order, Tier 1A discharges are not required to conduct Acute or Chronic Toxicity monitoring.

2. Tier 1 Exemption from Acute Toxicity Monitoring. The Central Valley Water Board has determined that Tier 1 discharges are clean or relatively pollutant-free wastewaters that pose little or no threat to water quality. Therefore, Acute Toxicity monitoring is not necessary for Tier 1 discharges.

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, 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. 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 Monitoring and Reporting Program (Attachment C, section V).

D. Receiving Water Monitoring

1. Surface Water

a. Receiving water monitoring is necessary to assess compliance with receiving water limitations and to assess the impacts of the discharge on the receiving stream.

Applicable receiving water monitoring will be specified in the Notice of Applicability considering the site-specific conditions of the discharge.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements – Not Applicable

X. PUBLIC PARTICIPATION

The Central Valley Water Board has considered the issuance of WDR's that will serve as an NPDES permit for limited threat discharges to waters of the United States. As a step in the WDR adoption process, the Central Valley Water Board staff has developed tentative WDR's and has encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

The Central Valley Water Board notified the Dischargers enrolled under the existing Limited Threat General Permit and interested agencies and persons of its intent to prescribe general WDR's for limited threat discharges and provided an opportunity to submit written comments and recommendations. Notification was provided through specific mailings and through publication in major newspapers for the following communities: Fresno, Redding and Sacramento.

The public had access to the agenda and any changes in dates and locations through the Central Valley Water Board's website at:
http://www.waterboards.ca.gov/centralvalley/board_info/meetings/

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDR's as provided through the notification process. Comments were due either in person or by mail to the Executive Officer at the Central Valley Water Board at the address on the cover page of this Order , or via email to RB5S-NPDES-Comments@waterboards.ca.gov.

To be fully responded to by staff and considered by the Central Valley Water Board, the written comments were due by 5:00 p.m. on **26 September 2016**.

C. Public Hearing

The Central Valley Water Board held a public hearing on the tentative WDR's during its regular Board meeting on the following date and time and at the following location:

Date:	13/14 October 2016
Time:	8:30 a.m.
Location:	Redding City Hall 777 Cypress Avenue Redding, CA 96001

Interested persons were invited to attend. At the public hearing, the Central Valley Water Board heard testimony pertinent to the discharge, WDR's, and permit. For accuracy of the record, important testimony was requested in writing.

D. Reconsideration of Waste Discharge Requirements

Any aggrieved person may petition the State Water Board to review the decision of the Central Valley Water Board regarding the final WDR's. The petition must be received by the State Water Board at the following address within 30 calendar days of the Central Valley Water Board's action:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see
http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. Information and Copying

The supporting documents and comments received are on file and may be inspected at the Regional Water Quality Control Board address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Central Valley Water Board by calling (916) 464-3291.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the general WDR's and NPDES permit should contact the Central Valley Water Board, reference the general WDR's and NPDES permit, and provide a name, address, and phone number.

G. Additional Information

All Notices of Applicability may be accessed through our website at:

http://www.waterboards.ca.gov/centralvalley/board_info/

For additional information or for questions regarding this General Order, please find the appropriate contact for your county from the list under "NPDES Permitting Contacts". You will find the contact list on the Central Valley Water Board's website by searching alphabetically for "Surface Water Discharges (NPDES)" at the following web address:

http://www.waterboards.ca.gov/centralvalley/about_us/phone_list

ATTACHMENT E

REQUEST FOR TERMINATION OF COVERAGE

PROJECT NAME_____

_____

PROJECT COUNTY_____

GENERAL ORDER NUMBER R5-2016-XXXX____-_____

WDID NUMBER_____

CIWQS NUMBER_____

DISCHARGE STOP DATE_____

TOTAL VOLUME OF DISCHARGE_____

TOTAL ELAPSED TIME OF DISCHARGE_____

CERTIFICATION

"I certify under penalty of law that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. The project named above is terminated. There is no longer a discharge to surface water. The treatment system (if applicable) has been dismantled. I request a Notice of Termination from the Executive Officer. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment."

A. Printed Name: _____

B. Signature: _____ C. Date: _____

D. Title: _____

E. Company Name: _____

F. Company Address: _____

Please complete this form and email to the following web email address:

centralvalleysacramento@waterboards.ca.gov

Please address the form to the attention of the NPDES Section.

ATTACHMENT F – REQUIRED MONITORING FOR NOTICE OF APPLICABILITY

The Discharger shall monitor a representative sample of the wastewater to be discharged as indicated in the Monitoring and Reporting Program (Attachment C, section IV) and the Notice of Applicability from the Executive Officer. The Central Valley Water Board will complete Table F-1 for inclusion in the Notice of Applicability by indicating with a checkmark the parameters that must be monitored, the minimum sampling frequencies, and any required analytical methods.

Table F-1. Required Monitoring for Notice of Applicability

✓	Parameter	Units	Sample Type	Minimum Sampling Frequency [1]	Required Analytical Method
Discharge Type/Rate of Flow					
	Intermittent Discharge	--	--	--	--
	Duration of Discharge, Total	--	--	--	--
	One-Time Discharge of Fixed Volume	--	--	--	--
	On-Going Discharge for Discrete Time Period	--	--	--	--
	Continuous Discharge	--	--	--	--
	Volume, Total	Million Gallons (MG)	Known or Calculated	--	[2]
	Discharge Flow Rate, Total	GPD	Estimated	--	[2]
	Discharge Flow Rate, Total	MGD	Meter	--	[2]
Constituents and Parameters of Concern					
	Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	Grab	--	[3]
	Total Suspended Solids	mg/L	Grab	--	[3]
	Dissolved Oxygen	mg/L	Grab	--	[2, 3]
	Hardness, Total (as $CaCO_3$)	mg/L	Grab	--	[2, 3, 4]
	pH	standard units	Grab	--	[2, 3]
	Temperature	°F	Grab	--	[2, 3]
	Electrical Conductivity @ 25°C	µmhos/cm	Grab	--	[2, 3]
	Total Dissolved Solids	mg/L	Grab	--	[2, 3]
	Settleable Solids	mL/L	Grab	--	[3]
	Turbidity	NTU	Grab	--	[2, 3]
	Total Coliform Organisms	MPN/100mL	Grab	--	[3]
	Eschericia Coliform Organisms	MPN/100mL	Grab	--	[3]
	Ammonia Nitrogen, Total (as N)	mg/L	Grab	--	[3, 5]
	Chlorine, Total Residual	mg/L	Grab	--	[2, 3, 6]
	Acute Toxicity	% Survival	Grab	--	[3, 9]
	Chronic Toxicity	TUc	Grab	--	[3, 9]
	Foaming Agents (MBAS)	µg/L	Grab	--	[3]
	Standard Minerals [8]	mg/L	Grab	--	[3]
	Aluminum, Total Recoverable	µg/L	Grab	--	[3, 7]
	Barium, Total Recoverable	µg/L	Grab	--	[3]
	Boron	mg/L	Grab	--	[3]
	Chloride	mg/L	Grab	--	[3]
	Chromium, Total	µg/L	Grab	--	[3]
	Fluoride	µg/L	Grab	--	[3]
	Iron, Total Recoverable	µg/L	Grab	--	[3]
	Manganese, Total Recoverable	µg/L	Grab	--	[3]

✓	Parameter	Units	Sample Type	Minimum Sampling Frequency [1]	Required Analytical Method
	Mercury, Methyl	ng/L	Grab	--	[3, 10]
	Molybdenum	µg/L	Grab	--	[3]
	Nitrate Nitrogen, Total (as N) [11]	mg/L	Grab	--	[3]
	Nitrite (as N) [11]	mg/L	Grab	--	[3]
	Nitrate plus Nitrite [11]	mg/L	Grab	--	[3]
	Phosphorus, Total (as P)	mg/L	Grab	--	[3]
	Sulfate	mg/L	Grab	--	[3]
	Sulfide (as S)	mg/L	Grab	--	[3]
	Sulfite (as SO_3)	mg/L	Grab	--	[3]
	Tributyltin	µg/L	Grab	--	[3]
	Alachlor	µg/L	Grab	--	[3]
	Atrazine	µg/L	Grab	--	[3]
	Bentazon	µg/L	Grab	--	[3]
	Carbofuran	µg/L	Grab	--	[3]
	Chlorpyrifos	µg/L	Grab	--	[3]
	2,4-D	µg/L	Grab	--	[3]
	2,4,5-TP (Silvex)	µg/L	Grab	--	[3]
	Dalapon	µg/L	Grab	--	[3]
	Diazinon	µg/L	Grab	--	[3]
	Di(2-ethylhexyl)adipate	µg/L	Grab	--	[3]
	Dinoseb	µg/L	Grab	--	[3]
	Diquat	µg/L	Grab	--	[3]
	Endothal	µg/L	Grab	--	[3]
	Ethylene Dibromide (EDB)	µg/L	Grab	--	[3]
	Methoxychlor	µg/L	Grab	--	[3]
	Molinate (Ordram)	µg/L	Grab	--	[3]
	Oxamyl	µg/L	Grab	--	[3]
	Picloram	µg/L	Grab	--	[3]
	Simazine (Princep)	µg/L	Grab	--	[3]
	Thiobencarb	µg/L	Grab	--	[3]
	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	µg/L	Grab	--	[3]
	1,2-Dichloroethene (cis and trans DCE)	µg/L	Grab	--	[3]
	1,2-Dibromo-3-Chloropropane (DBCP)	µg/L	Grab	--	[3]
	1,2,3-Trichloropropane (TCP)	µg/L	Grab	--	[3]
	1,3-Butadiene	µg/L	Grab	--	[3]
	1,3-Dichloropropene (cis and trans)	µg/L	Grab	--	[3]
	2-Butanone (Methyl ethyl ketone or MEK)	µg/L	Grab	--	[3]
	2-Chloroethylvinyl ether	µg/L	Grab	--	[3]
	2-Hexanone (Methyl n-butyl ketone)	µg/L	Grab	--	[3]
	3-Methyl-4-Chlorophenol	µg/L	Grab	--	[3]
	Acetone	µg/L	Grab	--	[3]
	Carbon Disulfide	µg/L	Grab	--	[3]
	Chloromethane (Methyl chloride)	µg/L	Grab	--	[3]
	MTBE (Methyl tertiary butyl ether)	µg/L	Grab	--	[3]
	Stoddard Solvent	µg/L	Grab	--	[3]

✓	Parameter	Units	Sample Type	Minimum Sampling Frequency [1]	Required Analytical Method
	Styrene				
	Trichlorofluoromethane (Freon 11)	µg/L	Grab	--	[3]
	Xylenes	µg/L	Grab	--	[3]
Priority Pollutants					
	Antimony, Total Recoverable	µg/L	Grab	--	[3, 12]
	Arsenic, Total Recoverable	µg/L	Grab	--	[3, 12]
	Beryllium, Total Recoverable	µg/L	Grab	--	[3, 12]
	Cadmium, Total Recoverable	µg/L	Grab	--	[3, 4, 12]
	Chromium (III)	µg/L	Grab	--	[3, 4, 12]
	Chromium (VI)	µg/L	Grab	--	[3, 12]
	Copper, Total Recoverable	µg/L	Grab	--	[3, 4, 12]
	Lead, Total Recoverable	µg/L	Grab	--	[3, 4, 12]
	Mercury, Total Recoverable	µg/L	Grab	--	[3, 10, 12]
	Nickel, Total Recoverable	µg/L	Grab	--	[3, 4, 12]
	Selenium, Total Recoverable	µg/L	Grab	--	[3, 12]
	Silver, Total Recoverable	µg/L	Grab	--	[3, 4, 12]
	Thallium, Total Recoverable	µg/L	Grab	--	[3, 12]
	Zinc, Total Recoverable	µg/L	Grab	--	[3, 4, 12]
	Cyanide, Total (as CN)	µg/L	Grab	--	[3, 12]
	Asbestos	MFL	Grab	--	[3, 12]
	2,3,7,8-TCDD [13]	µg/L	Grab	--	[3, 12]
	Acrolein	µg/L	Grab	--	[3, 12]
	Acrylonitrile	µg/L	Grab	--	[3, 12]
	Benzene	µg/L	Grab	--	[3, 12]
	Bromoform	µg/L	Grab	--	[3, 12]
	Carbon Tetrachloride (Freon 10)	µg/L	Grab	--	[3, 12]
	Chlorobenzene	µg/L	Grab	--	[3, 12]
	Chlorodibromomethane	µg/L	Grab	--	[3, 12]
	Chloroethane	µg/L	Grab	--	[3, 12]
	2-Chloroethylvinyl Ether	µg/L	Grab	--	[3, 12]
	Chloroform	µg/L	Grab	--	[3, 12]
	Dichlorobromomethane	µg/L	Grab	--	[3, 12]
	1,1-Dichloroethane (DCA)	µg/L	Grab	--	[3, 12]
	1,2-Dichloroethane (DCA)	µg/L	Grab	--	[3, 12]
	1,1-Dichloroethylene (DCE)	µg/L	Grab	--	[3, 12]
	1,2-Dichloropropane	µg/L	Grab	--	[3, 12]
	1,3-Dichloropropylene	µg/L	Grab	--	[3, 12]
	Ethylbenzene	µg/L	Grab	--	[3, 12]
	Methyl Bromide (Bromomethane)	µg/L	Grab	--	[3, 12]
	Methyl Chloride (Chloromethane)	µg/L	Grab	--	[3, 12]
	Methylene Chloride (Dichloromethane)	µg/L	Grab	--	[3, 12]
	1,1,2,2-Tetrachloroethane	µg/L	Grab	--	[3, 12]
	Tetrachloroethylene (PCE)	µg/L	Grab	--	[3, 12]
	Toluene	µg/L	Grab	--	[3, 12]
	1,2-Trans-Dichloroethylene (DCE)	µg/L	Grab	--	[3, 12]

✓	Parameter	Units	Sample Type	Minimum Sampling Frequency [1]	Required Analytical Method
	1,1,1-Trichloroethane (TCA)	µg/L	Grab	--	[3, 12]
	1,1,2-Trichloroethane (TCA)	µg/L	Grab	--	[3, 12]
	Trichloroethylene (TCE)	µg/L	Grab	--	[3, 12]
	Vinyl Chloride (Chloroethene)	µg/L	Grab	--	[3, 12]
	2-Chlorophenol	µg/L	Grab	--	[3, 12]
	2,4-Dichlorophenol	µg/L	Grab	--	[3, 12]
	2,4-Dimethylphenol	µg/L	Grab	--	[3, 12]
	2-Methyl-4,6-Dinitrophenol	µg/L	Grab	--	[3, 12]
	2,4-Dinitrophenol	µg/L	Grab	--	[3, 12]
	2-Nitrophenol	µg/L	Grab	--	[3, 12]
	4-Nitrophenol	µg/L	Grab	--	[3, 12]
	3-Methyl-4-Chlorophenol	µg/L	Grab	--	[3, 12]
	Pentachlorophenol (PCP)	µg/L	Grab	--	[3, 12]
	Phenol	µg/L	Grab	--	[3, 12]
	2,4,6-Trichlorophenol	µg/L	Grab	--	[3, 12]
	Acenaphthene	µg/L	Grab	--	[3, 12]
	Acenaphthylene	µg/L	Grab	--	[3, 12]
	Anthracene	µg/L	Grab	--	[3, 12]
	Benzidine	µg/L	Grab	--	[3, 12]
	Benzo(a)Anthracene	µg/L	Grab	--	[3, 12]
	Benzo(a)Pyrene	µg/L	Grab	--	[3, 12]
	Benzo(b)Fluoranthene	µg/L	Grab	--	[3, 12]
	Benzo(ghi)Perylene	µg/L	Grab	--	[3, 12]
	Benzo(k)Fluoranthene	µg/L	Grab	--	[3, 12]
	Bis(2-Chloroethoxy)Methane	µg/L	Grab	--	[3, 12]
	Bis(2-Chloroethyl)Ether	µg/L	Grab	--	[3, 12]
	Bis(2-Chloroisopropyl)Ether	µg/L	Grab	--	[3, 12]
	Bis(2-Ethylhexyl)Phthalate	µg/L	Grab	--	[3, 12, 13]
	4-Bromphenyl Phenyl Ether	µg/L	Grab	--	[3, 12]
	Butylbenzyl Phthalate	µg/L	Grab	--	[3, 12]
	2-Chloronaphthalene	µg/L	Grab	--	[3, 12]
	4-Chlorophenyl Phenyl Ether	µg/L	Grab	--	[3, 12]
	Chrysene	µg/L	Grab	--	[3, 12]
	Dibenzo(a,h)Anthracene	µg/L	Grab	--	[3, 12]
	1,2-Dichlorobenzene	µg/L	Grab	--	[3, 12]
	1,3-Dichlorobenzene	µg/L	Grab	--	[3, 12]
	1,4-Dichlorobenzene	µg/L	Grab	--	[3, 12]
	3,3-Dichlorobenzidine	µg/L	Grab	--	[3, 12]
	Diethyl Phthalate	µg/L	Grab	--	[3, 12]
	Dimethyl Phthalate	µg/L	Grab	--	[3, 12]
	Di-n-Butyl Phthalate	µg/L	Grab	--	[3, 12]
	2,4-Dinitrotoluene	µg/L	Grab	--	[3, 12]
	2,6-Dinitrotoluene	µg/L	Grab	--	[3, 12]
	Di-n-Octyl Phthalate	µg/L	Grab	--	[3, 12]
	1,2-Diphenylhydrazine	µg/L	Grab	--	[3, 12]

✓	Parameter	Units	Sample Type	Minimum Sampling Frequency [1]	Required Analytical Method
	Fluoranthene	µg/L	Grab	--	[3, 12]
	Fluorene	µg/L	Grab	--	[3, 12]
	Hexachlorobenzene	µg/L	Grab	--	[3, 12]
	Hexachlorobutadiene	µg/L	Grab	--	[3, 12]
	Hexachlorocyclopentadiene	µg/L	Grab	--	[3, 12]
	Hexachloroethane	µg/L	Grab	--	[3, 12]
	Indeno(1,2,3-cd)Pyrene	µg/L	Grab	--	[3, 12]
	Isophorone	µg/L	Grab	--	[3, 12]
	Naphthalene	µg/L	Grab	--	[3, 12]
	Nitrobenzene	µg/L	Grab	--	[3, 12]
	N-Nitrosodimethylamine	µg/L	Grab	--	[3, 12]
	N-Nitrosodi-n-Propylamine	µg/L	Grab	--	[3, 12]
	N-Nitrosodiphenylamine	µg/L	Grab	--	[3, 12]
	Phenanthrene	µg/L	Grab	--	[3, 12]
	Pyrene	µg/L	Grab	--	[3, 12]
	1,2,4-Trichlorobenzene	µg/L	Grab	--	[3, 12]
	Aldrin	µg/L	Grab	--	[3, 12]
	alpha-BHC (Benzene Hexachloride)	µg/L	Grab	--	[3, 12]
	beta-BHC (Benzene Hexachloride)	µg/L	Grab	--	[3, 12]
	gamma-BHC (Benzene Hexachloride or Lindane)	µg/L	Grab	--	[3, 12]
	delta-BHC (Benzene Hexachloride)	µg/L	Grab	--	[3, 12]
	Chlordane	µg/L	Grab	--	[3, 12]
	4,4'-DDT	µg/L	Grab	--	[3, 12]
	4,4'-DDE	µg/L	Grab	--	[3, 12]
	4,4'-DDD	µg/L	Grab	--	[3, 12]
	Dieldrin	µg/L	Grab	--	[3, 12]
	alpha-Endosulfan	µg/L	Grab	--	[3, 12]
	beta-Endolsulfan	µg/L	Grab	--	[3, 12]
	Endosulfan Sulfate	µg/L	Grab	--	[3, 12]
	Endrin	µg/L	Grab	--	[3, 12]
	Endrin Aldehyde	µg/L	Grab	--	[3, 12]
	Heptachlor	µg/L	Grab	--	[3, 12]
	Heptachlor Epoxide	µg/L	Grab	--	[3, 12]
	Polychlorinated Biphenyls (PCB's) [14]	µg/L	Grab	--	[3, 12]
	Toxaphene	µg/L	Grab	--	[3, 12]

✓	Parameter	Units	Sample Type	Minimum Sampling Frequency [1]	Required Analytical Method

[1] The minimum sampling frequency (e.g., 2/Week, 1/Month, 1/Quarter) will be specified in the Notice of Applicability.

[2] A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

[3] Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

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

[5] Concurrent with whole effluent toxicity monitoring.

[6] Total chlorine residual must be monitored with a method sensitive to and accurate at a reporting level (RL) of 0.08 mg/L.

[7] Compliance with the final effluent limitations for aluminum can be demonstrated using either total or acid-soluble (inductively coupled plasma/atomic emission spectrometry or inductively coupled plasma/mass spectrometry) analysis methods, as supported by U.S. EPA's Ambient Water Quality Criteria for Aluminum document (EPA 440/5-86-008), or other standard methods that exclude aluminum silicate particles as approved by the Executive Officer.

[8] 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).

[9] See the MRP (Attachment C, section V) for toxicity monitoring requirements.

[10] Unfiltered methyl mercury and total mercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, for collection of equipment blanks (section 9.4.4.2), and shall be analyzed by U.S. EPA method 1630/1631 (Revision E) with a reporting limit of 0.05 ng/L for methyl mercury and 0.5 ng/L for total mercury.

[11] Monitoring for nitrite and nitrate shall be conducted concurrently.

[12] For priority pollutant constituents the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California

[13] In order to verify if bis (2-ethylhexyl) phthalate is truly present in the effluent discharge, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant. Sampling and analysis of Bis (2-ethylhexyl) phthalate shall be conducted using ultra-clean techniques that eliminate the possibility of sample contamination.

[14] Applies to the sum of Polychlorinated biphenyls (PCB's) aroclors 1242, 1254, 1221, 1232, 1248, 1280, and 1016.

ATTACHMENT G –– POLLUTION PREVENTION AND MONITORING AND REPORTING PLAN

Water suppliers that have or propose to have multiple discharge points covered by this General Order are required in section II.A.2.b of this Order to develop a site specific Pollution Prevention and Monitoring and Reporting Plan (PPMRP) and submit the document with the Notice of Intent. The following information must be included in the PPMRP:

I. Pollution Prevention Plan

A. Distribution System. Provide a description and a map of the distribution system including the boundaries of the geographical area where discharges may occur (e.g., service area).

B. Potential Discharge Locations. Identify actual or approximate locations of fire hydrants, supply wells, pump stations, and pressure relief valves. Include a table and/or map of potential discharge locations.

C. Pollutant Types. Identify the pollutants that could potentially be discharged (e.g., total suspended solids, settable solids, chlorine, etc.).

D. Flow Rate. Identify the range of expected instantaneous discharge flow rates and/or total daily flow volume.

E. Receiving Waters. Identify the receiving water (e.g., drainage canal, creek, or river) the discharges could directly enter and the nearest named receiving water.

F. Treatment Systems. Identify treatment systems, equipment, or procedures used to remove chlorine and solids from discharges and to control pH.

G. Spill Contingency Plans. Address unintentional releases/discharges of water (whether chlorinated or dechlorinated) such as water discharges from breaks in the system (including, but not limited to: fire hydrant, back-flow preventers, and pumps). A discharge from a water main pressure relief valve that is beyond the typical volume discharged from a well-maintained pressure relief valve is considered a spill. In addition, include plans for the capture and containment of the released volume, dechlorination of released volume, temporary procedures to stop the unintentional discharge until a permanent repair, and permanent repair of water system components that fail.

H. Operation and Maintenance (O&M) Procedures. Include procedures that would prevent unintentional releases, such as pressure relief valve maintenance, planned water main replacement, water main corrosion prevention, and pump station maintenance, power supply maintenance. O&M procedures also include those procedures to prevent discharges of other pollutants (such as chlorine and dechlorinating agents) during an intentional or unintentional release of water and in the course of water system construction, repair and maintenance.

I. Inspections. Include a plan for regularly scheduled inspections to check the integrity of water supply system components (pumps, pressure relief valves, water pipes and connections, etc.) to prevent unintentional and accidental discharges of water (chlorinated or dechlorinated).

J. Equipment/Supplies. Identify equipment and supplies that are needed to 1) properly operate and maintain a water supply system to prevent unintentional discharges; 2) dechlorinate, contain and control intentional discharges; 3) prevent discharge of other pollutants (chlorine, dechlorinating agents, sediment, etc.) during intentional and unintentional discharges and during water supply system construction, repair and maintenance; and 4) quickly and effectively respond to dechlorinate, contain and control unintentional discharges.

K. Training. Identify training activities to 1) ensure staff are adequately prepared to properly operate and maintain a water supply system to prevent unintentional discharges; 2) dechlorinate, contain and control intentional discharges; 3) prevent discharge of other pollutants (chlorine, dechlorinating agents, sediment, etc.) during intentional and unintentional discharges and during water supply system construction, repair and maintenance; and 4) quickly and effectively respond to dechlorinate, contain and control unintentional discharges.

L. Erosion Control. Identify equipment and supplies that are needed to control and contain intentional and unintentional discharges of water to prevent erosion of soil and sediment which can be transported with the discharge.

II. Monitoring and Reporting Program

Develop a representative sampling and analysis program. Dischargers are not required to sample all discharges if reasonable assurance is provided that the discharges will comply with requirements. Provide rationale for selection of the effluent and receiving water monitoring plan. The sampling and analysis program shall include the following:

A. Sampling Methods. Include a description of how effluent and receiving water samples will be collected (e.g., grab, composite, continuous, metered, totalizer) and preserved/delivered within the holding time to the analytical laboratory.

B. Sampling Locations. Identify effluent sampling locations (e.g., at each well or fire hydrant, or at a subset of well or fire hydrant locations) and where samples will be taken (e.g., from fire hydrant, 10 feet from source, at effluent of settling basin).

In addition, identify all receiving water locations where samples can be taken and describe where at those locations samples will be taken (e.g., 10 feet upstream and downstream of storm drain outfall into the drainage channel).

C. Sampling Frequency. Identify the frequency that effluent and receiving water samples will be taken (e.g., during each discharge, every fourth discharge, each well discharge). In addition, specify when during a discharge the receiving water samples will be collected (consider time within the storm drain system).

D. Analysis Methods. Identify the constituents/parameters that will be monitored and/or analyzed and the method of analysis (e.g., meter EPA method, instrument, laboratory). In addition, identify Quality Assurance/Quality Control procedures, including instrument calibration.

E. Inspection Plans and Visual Observations. Describe how receiving waters will be inspected to obtain and record visual observations for discoloration, stream bottom deposits, etc.

F. Rationale. Explain the reason for the effluent and receiving water sampling methods, locations, and frequencies that were chosen and why these will provide representative samples. For example, if a sample will not be taken at the identified locations during each discharge, describe criteria for deciding when a sample will be taken at that location.

The sampling and analysis program must be developed and implemented in accordance with the General Monitoring Provisions, Other Monitoring Requirements, and Reporting Requirements contained in sections I, IX, and X, respectively, of the Monitoring and Reporting Program (Attachment C).

Attachment H - Application for Intake Water Credit for Individual Pollutant

1. *Is the primary source of water for the facility operation the same as the water body that receives the facility's effluent discharge?*	☐No	*You do not need to complete the remainder of this section; the facility is not eligible for an intake water credit. EXIT*
	☐Yes	*Continue to question 2 below.*
2. *Does the facility effluent discharge water exceed applicable numeric water quality criteria?*	☐No	*You do not need to complete the remainder of this section; treatment is not required before discharge. EXIT*
	☐Yes	*You must choose one of the following Circle option a or b:* *a. Treatment will be implemented. You do not need to complete the remainder of this section. EXIT* b. *Apply for intake water credit for the following pollutant and continue to question 3:* _____
3. *Does the facility use multiple water supplies?*	☐No	*Continue directly to question 4 below*
	☐Yes	*You must complete the following sections a and b before moving on to question 4:* *a. Describe the conditions that trigger the use of the supplemental water supply and the frequency and duration that the supplemental water supply is used.* _____ _____ _____ _____ *b. Complete the following table:*

Intake Water Source Name/Description	**Max. Flow** (specify units)	**Min. Flow** (specify units)
1.		
2.		
3.		
Receiving Water Name		

4. *Does the facility alter the pollutant for which you are seeking an intake water credit chemically or physically?*	☐No	*Continue directly to question 5 below.*
	☐Yes	*Describe how the facility alters the pollutant and continue to question 5 below.*
5. *Would the pollutant for which you are seeking an intake water credit have reached the vicinity of the discharge point in the receiving water within a reasonable period of time and with the same effects had it not been diverted to your facility?*		*Explain and continue to question 6 below.* _____ _____ _____ _____
6. *Does the timing or location of your discharge cause adverse effects on water quality and beneficial uses that would not occur if the intake water pollutant had been left in the receiving water body?*		*Explain* _____ _____ _____ _____

Attachment I – Screening Requirements for Limited Threat Dischargers

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. 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	Yes	No	Yes	Yes	No
Chlorine, Total Residual	Yes	Yes	Yes	Yes	No	No	No
Aluminum, Total Recoverable Iron, Total Recoverable Manganese, Total Recoverable	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
Acute Toxicity	No	No	No	Yes	Yes	Yes	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).

II. Screening Levels

A. Screening Levels for Constituents and Parameters of Concern. Dischargers required to sample and analyze any or all of the constituents contained in Table C-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-2 may result in required treatment and effluent limitations as specified in the NOA from the Executive Officer.

Table I-2. Screening Levels for 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	0.025
Iron, Total Recoverable	µg/L	300 [3]	--
Manganese, Total Recoverable	µg/L	50 [3]	--
Nitrate plus Nitrite	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.
[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.

B. Screening Levels for Priority Pollutants[1]. Dischargers required to sample and analyze the effluent for the constituents contained in Table C-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.

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])
1	Antimony, Total Recoverable	µg/L	6	4300
2	Arsenic, Total Recoverable	µg/L	10	150
3	Beryllium, Total Recoverable	µg/L	4	--
4	Cadmium, Total Recoverable	µg/L	[3]	[3]
5a	Chromium (III)	µg/L	[3]	[3]
5b	Chromium (VI)	µg/L	10	11
6	Copper, Total Recoverable	µg/L	[3]	[3]
7	Lead, Total Recoverable	µg/L	[3]	[3]
8	Mercury, Total Recoverable	µg/L	0.05	0.051

[1] Dischargers from water supply systems applying 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.

CTR #	Parameter [1]	Units	Screening Level (Based on MUN [2])	Screening Level (Based on No MUN [2])
9	Nickel, Total Recoverable	µg/L	[3]	[3]
10	Selenium, Total Recoverable	µg/L	5.0	5.0
11	Silver, Total Recoverable	µg/L	[3]	[3]
12	Thallium, Total Recoverable	µg/L	1.7	6.3
13	Zinc, Total Recoverable	µg/L	[3]	[3]
14	Cyanide, Total (as CN)	µg/L	5.2	5.2
15	Asbestos	MFL	7	--
16	2,3,7,8-TCDD (Dioxin)	µg/L	1.3E-08	--
17	Acrolein	µg/L	320	--
18	Acrylonitrile	µg/L	0.059	0.66
19	Benzene	µg/L	1	71
20	Bromoform	µg/L	4.3	360
21	Carbon Tetrachloride	µg/L	0.25	4.4
22	Chlorobenzene	µg/L	70	--
23	Chlorodibromomethane	µg/L	0.41	34
24	Chloroethane	µg/L	--	--
25	2-Chloroethylvinyl Ether	µg/L	--	--
26	Chloroform	µg/L	80	1240
27	Dichlorobromomethane	µg/L	0.56	46
28	1,1-Dichloroethane	µg/L	5	--
29	1,2-Dichloroethane	µg/L	0.38	99
30	1,1-Dichloroethylene	µg/L	0.057	--
31	1,2-Dichloropropane	µg/L	0.52	39
32	1,3-Dichloropropylene	µg/L	10	1700
33	Ethylbenzene	µg/L	300	29000
34	Methyl Bromide	µg/L	48	4000
35	Methyl Chloride	µg/L	--	--
36	Methylene Chloride	µg/L	4.7	1600
37	1,1,2,2-Tetrachloroethane	µg/L	0.17	--
38	Tetrachloroethylene	µg/L	0.8	--
39	Toluene	µg/L	150	--
40	1,2-Trans-Dichloroethylene	µg/L	10	--
41	1,1,1-Trichloroethane	µg/L	200	--
42	1,1,2-Trichloroethane	µg/L	0.60	--
43	Trichloroethylene	µg/L	2.7	--
44	Vinyl Chloride	µg/L	0.5	--
45	2-Chlorophenol	µg/L	120	--
46	2,4-Dichlorophenol	µg/L	93	2300
47	2,4-Dimethylphenol	µg/L	540	--
48	2-Methyl-4,6-Dinitrophenol	µg/L	13.4	230
49	2,4-Dinitrophenol	µg/L	70	230
50	2-Nitrophenol	µg/L	--	--
51	4-Nitrophenol	µg/L	60	--
52	3-Methyl-4-Chlorophenol	µg/L	30	30
53	Pentachlorophenol	µg/L	0.28	8.2
54	Phenol	µg/L	21000	--
55	2,4,6-Trichlorophenol	µg/L	2.1	6.5
56	Acenaphthene	µg/L	1200	--
57	Acenaphthylene	µg/L	--	--
58	Anthracene	µg/L	9600	110000

CTR #	Parameter [1]	Units	Screening Level (Based on MUN [2])	Screening Level (Based on No MUN [2])
59	Benzidine	µg/L	0.00012	0.00054
60	Benzo(a)Anthracene	µg/L	0.0044	0.049
61	Benzo(a)Pyrene	µg/L	0.0044	0.049
62	Benzo(b)Fluoranthene	µg/L	0.0044	0.049
63	Benzo(ghi)Perylene	µg/L	--	--
64	Benzo(k)Fluoranthene	µg/L	0.0044	0.049
65	Bis(2-Chloroethoxy)Methane	µg/L	--	--
66	Bis(2-Chloroethyl)Ether	µg/L	0.031	1.4
67	Bis(2-Chloroisopropyl)Ether	µg/L	1400	170000
68	Bis(2-Ethylhexyl)Phthalate	µg/L	1.8	5.9
69	4-Bromophenyl Phenyl Ether	µg/L	--	--
70	Butylbenzyl Phthalate	µg/L	3000	5200
71	2-Chloronaphthalene	µg/L	1700	4300
72	4-Chlorophenyl Phenyl Ether	µg/L	--	--
73	Chrysene	µg/L	0.0044	0.049
74	Dibenzo(a,h)Anthracene	µg/L	0.0044	0.049
75	1,2-Dichlorobenzene	µg/L	600	--
76	1,3-Dichlorobenzene	µg/L	400	--
77	1,4-Dichlorobenzene	µg/L	5	--
78	3,3-Dichlorobenzidine	µg/L	0.04	0.077
79	Diethyl Phthalate	µg/L	23000	120000
80	Dimethyl Phthalate	µg/L	313000	2900000
81	Di-n-Butyl Phthalate	µg/L	2700	12000
82	2,4-Dinitrotoluene	µg/L	0.11	9.1
83	2,6-Dinitrotoluene	µg/L	0.05	--
84	Di-n-Octyl Phthalate	µg/L	--	--
85	1,2-Diphenylhydrazine	µg/L	0.040	0.54
86	Fluoranthene	µg/L	300	370
87	Fluorene	µg/L	1300	14000
88	Hexachlorobenzene	µg/L	0.00075	0.00077
89	Hexachlorobutadiene	µg/L	0.44	9.3
90	Hexachlorocyclopentadiene	µg/L	50	--
91	Hexachloroethane	µg/L	1.9	8.9
92	Indeno(1,2,3-cd) Pyrene	µg/L	0.0044	0.049
93	Isophorone	µg/L	8.4	600
94	Naphthalene	µg/L	--	--
95	Nitrobenzene	µg/L	17	1900
96	N-Nitrosodimethylamine	µg/L	0.00069	8.1
97	N-Nitrosodi-n-Propylamine	µg/L	0.005	1.4
98	N-Nitrosodiphenylamine	µg/L	5.0	16
99	Phenanthrene	µg/L	--	--
100	Pyrene	µg/L	960	11000
101	1,2,4-Trichlorobenzene	µg/L	5	50
102	Aldrin	µg/L	0.00013	0.00014
103	alpha-BHC	µg/L	0.0039	0.013
104	beta-BHC	µg/L	0.014	0.046
105	gamma-BHC (Lindane)	µg/L	0.019	0.063
106	delta-BHC	µg/L	--	--
107	Chlordane	µg/L	0.00057	0.00059
108	4,4-DDT	µg/L	0.00059	--

CTR #	Parameter [1]	Units	Screening Level (Based on MUN [2])	Screening Level (Based on No MUN [2])
109	4,4-DDE	µg/L	0.00059	--
110	4,4-DDD	µg/L	0.00083	--
111	Dieldrin	µg/L	0.00014	--
112	alpha-Endosulfan	µg/L	0.056	0.56
113	beta-Endosulfan	µg/L	0.056	0.56
114	Endosulfan Sulfate	µg/L	110	--
115	Endrin	µg/L	0.036	0.036
116	Endrin Aldehyde	µg/L	0.76	0.81
117	Heptachlor	µg/L	0.00021	--
118	Heptchlor Epoxide	µg/L	0.00010	--
119-125	PCBs sum [4]	µg/L	0.00017	--
126	Toxaphene	µg/L	0.0002	0.0002

[1] Pollutants 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] See Tables I-4A, I-4B, and I-4C below.
[4] This screening level applies to the sum of PCB Aroclors 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

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[1]. For waters with hardness concentrations less than 100 mg/L, screening levels have been segmented into 10 mg/L increments. For each segment the 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.

Table I-4A. Screening Levels for Hardness-Dependent Metals – Hardness 0 to <40 mg/L

Parameter[1]	Units	Hardness in mg/L (H)			
		H <10	10≤ H <20	20≤ H <30	30≤ H <40
		Screening Level	Screening Level	Screening Level	Screening Level
Cadmium, Total Recoverable	µg/L	0.23	0.56	0.83	1.1
Chromium (III)	µg/L	18	44	67	88
Copper, Total Recoverable	µg/L	0.72	1.8	2.9	3.8
Lead, Total Recoverable	µg/L	0.07	0.28	0.54	0.84
Nickel, Total Recoverable	µg/L	4.1	10	16	21
Silver, Total Recoverable	µg/L	0.023	0.16	0.37	0.67
Zinc, Total Recoverable	µg/L	9.5	24	37	49

[1] All hardness values are in mg/L as $CaCO_3$

Table I-4B. Screening Levels for Hardness-Dependent Metals – Hardness 40 to <80 mg/L

Parameter[1]	Units	Hardness in mg/L (H)			
		40≤ H <50	50≤ H <60	60≤ H <70	70≤ H <80
		Screening Level	Screening Level	Screening Level	Screening Level
Cadmium, Total Recoverable	µg/L	1.3	1.5	1.8	2.0
Chromium (III)	µg/L	110	130	150	160
Copper, Total Recoverable	µg/L	4.7	5.6	6.5	7.3
Lead, Total Recoverable	µg/L	1.2	1.5	1.8	2.2
Nickel, Total Recoverable	µg/L	27	31	36	41
Silver, Total Recoverable	µg/L	1.0	1.5	1.9	2.5
Zinc, Total Recoverable	µg/L	61	72	83	94

Table I-4C. Screening Levels for Hardness-Dependent Metals – Hardness ≥80 mg/L

Parameter[1]	Units	Hardness in mg/L (H)			
		80≤ H <90	90≤ H <100	100≤ H <200	H ≥200
		Screening Level	Screening Level	Screening Level	Screening Level
Cadmium, Total Recoverable	µg/L	2.2	2.4	3.4	4.2
Chromium (III)	µg/L	180	200	290	370
Copper, Total Recoverable	µg/L	8.1	8.9	13	17
Lead, Total Recoverable	µg/L	2.6	3.0	5.3	7.7
Nickel, Total Recoverable	µg/L	45	50	74	94
Silver, Total Recoverable	µg/L	3.1	3.7	8.2	13
Zinc, Total Recoverable	µg/L	100	120	170	220

[1] Pollutants 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).

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). Any exceedance of a screening level in Table I-5 may result in required treatment 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
1,2-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

Parameter	Units	Screening Level
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
Chlorobenzene	µg/L	0.5
Chlorodibromomethane	µg/L	0.5
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
Ethylene dibromide (EDB)	µg/L	0.5
MTBE	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

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-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.

Table I-6. 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

Parameter[1]	Units	Screening Level
Arsenic, Total Recoverable	µg/L	10
Copper, Total Recoverable	µg/L	10[2]
Silver, Total Recoverable	µg/L	10
Zinc, Total Recoverable	µg/L	100[2]

[1] Pollutants 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] Does not apply to Sacramento River above the State Highway 32 Bridge at Hamilton City.

B. Screening Levels for Discharges to the Sacramento River and Its Tributaries Above the State Highway 32 Bridge at Hamilton City. In addition to the analyses required in Attachment I.I, dischargers seeking authorization to discharge under this General Order to the Sacramento River and its tributaries above the State Highway 32 Bridge at Hamilton City shall sample and analyze the effluent for the constituents contained in Tables I-7A, I-7B, and I-7C. The screening levels contained in Tables I-7A, I-7B, and I-7C for copper, zinc, and cadmium supersede those contained in Attachment I.II 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. The screening levels contained in Tables I-7A, I-7B, and I-7C are based on hardness. For waters with hardness concentrations less than 100 mg/L, screening levels have been segmented into 10 mg/L increments. For each segment the central value between the lower and upper bounds was used to determine the corresponding effluent limit. For waters with lowest observed 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.

Table I-7A. Screening Levels for Discharges to the Sacramento River and Its Tributaries Above the State Highway 32 Bridge at Hamilton City – Hardness 0 to <40 mg/L

Parameter[1]	Units	Hardness in mg/L (H)			
		H <10	10≤ H <20	20≤ H <30	30≤ H <40
		Screening Level	Screening Level	Screening Level	Screening Level
Cadmium, Total Recoverable	µg/L	0.02	0.07	0.13	0.19
Copper, Total Recoverable	µg/L	0.86	2.3	3.7	5.0
Zinc, Total Recoverable	µg/L	2.8	7.1	11	14

[1] Pollutants 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).

Table I-7B. Screening Levels for Discharges to the Sacramento River and Its Tributaries Above the State Highway 32 Bridge at Hamilton City – Hardness 40 to <80 mg/L

Parameter[1]	Units	Hardness in mg/L (H)			
		40≤ H <50	50≤ H <60	60≤ H <70	70≤ H <80
		Screening Level	Screening Level	Screening Level	Screening Level
Cadmium, Total Recoverable	µg/L	0.26	0.32	0.39	0.46
Copper, Total Recoverable	µg/L	6.3	7.5	8.7	9.9
Zinc, Total Recoverable	µg/L	18	21	24	27

[1] Pollutants 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).

Table I-7C. Screening Levels for Discharges to the Sacramento River and Its Tributaries Above the State Highway 32 Bridge at Hamilton City – Hardness ≥80 mg/L

Parameter[1]	Units	Hardness in mg/L (H)			
		80≤ H <90	90≤ H <100	100≤ H <200	H ≥200
		Screening Level	Screening Level	Screening Level	Screening Level
Cadmium, Total Recoverable	µg/L	0.54	0.61	1.0	1.4
Copper, Total Recoverable	µg/L	11	12	19	24
Zinc, Total Recoverable	µg/L	30	33	48	61

[1] Pollutants 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).

C. Screening Levels for Discharges Within the Sacramento and San Joaquin River Basins and Waters Designated as COLD in the Tulare Lake Basin. In addition to the analyses required in Attachment I.I, dischargers seeking authorization to discharge under this General Order within the Sacramento and San Joaquin River Basins and waters designated COLD in the Tulare Lake Basin shall sample and analyze the effluent for the constituents contained in Table I-8. The screening level contained in Table I-8 for persistent chlorinated hydrocarbon pesticides supersedes those contained in Attachment I.II for the same parameters. The results of the analyses shall be compared to the corresponding screening level and shall be submitted as part of the application.

Table I-8. Screening Levels for Discharges Within the Sacramento and San Joaquin River Basins and Waters Designated as COLD in the Tulare Lake Basin

Parameter[1]	Units	Screening Level
Persistent Chlorinate Hydrocarbon Pesticides	µg/L	ND[2]

[1] Pollutants 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] The non-detectable (ND) screening level applies to each individual pesticide. No individual pesticide may be present in the discharge at detectable concentrations. The Discharger shall use USEPA standard analytical techniques with a maximum acceptable detection level of 0.5 µg/L. Persistent chlorinated hydrocarbon pesticides include aldrin, dieldrin, chlordane, endrin, endrin aldehyde, heptachlor, heptachlor epoxide, hexachlorocyclohexane (alpha-BHC, beta-BHC, delta-BHC, and gamma-BHC), endosulfan (alpha and beta), endosulfan sulfate, toxaphene, 4,4'DDD, 4,4'DDE, and 4,4'DDT.

ATTACHMENT J

NOTICE OF INTENT

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF
GENERAL ORDER R5-2016-XXXX
NPDES NO. CAG995002
FOR
LIMITED THREAT DISCHARGES TO SURFACE WATERS

To obtain coverage under this General Order, which also serves as the National Pollutant Discharge Elimination System (NPDES) Permit, the Discharger must submit a complete Notice of Intent including the following requirements. Additional information may be requested by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) for a specific project.

1. **Form** (To be submitted by all Dischargers.)

☐ State Water Board Form 200 – Report of Waste Discharge Form

2. **Project Description** (To be submitted by all Dischargers.)

☐ A full description on official letterhead, of the proposed project, treatment processes (if applicable), and discharge. Include the following:

- ☐ Discharge Type/Description;
- ☐ Discharge location (County, City, street, nearest cross street, Township/Range/Section, GPS coordinates);
- ☐ Maximum daily discharge in gallons per day (GPD);
- ☐ Average daily discharge in GPD;
- ☐ Total volume of discharge
- ☐ Approximate start-up date;
- ☐ Projected discharge duration;
- ☐ If discharge flows are intermittent, the discharge frequency and volume per discharge;
- ☐ Name of receiving water body;
- ☐ Name of major downstream water body;
- ☐ A narrative description of any additives and their composition;
- ☐ A narrative description of the proposed or existing treatment system or reasons why a treatment system is not necessary;
- ☐ If a professional engineer has evaluated the existing or proposed discharge for compliance with this General Order, identify; name, mailing address, phone number, certificate number, date.

☐ A site map showing the location of the proposed project, treatment system (if applicable), discharge points, the receiving water, groundwater wells and residences within 1,500 feet.

3. **Fee Requirement** (To be submitted by all 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.

4. **Discharge Type** (To be submitted by all Dischargers. Check all that apply.)

☐ Well Development Water	☐ Aggregate Mine
☐ Construction Dewatering	☐ Groundwater Extraction and/or Cleanup Project
☐ Pump/Well Testing	☐ Superchlorination
☐ Water Supply System	☐ Equipment Decontamination
☐ Pipeline/Tank Pressure Testing	☐ Wastewater from Cleanup Site
☐ Pipeline/Tank Flushing or Dewatering	☐ Liquid Mine Waste from Hard Rock Mine
☐ Condensate	☐ Other/Describe
☐ Filter Backwash	_____

5. **Evaluation of Disposal/Reclamation Options** (To be submitted by all 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/.

8. Additional Requirements for Discharges from Drinking Water Supply Systems (To be submitted for drinking water supply system discharges only, for application for Categorical Exception to Priority Pollutant monitoring requirements.)

If the discharge is necessary to implement control measures regarding drinking water conducted to fulfill statutory requirements under the federal Safe Drinking Water Act or the California Health and Safety Code, then the Discharger shall submit the following for the approval of the Executive Officer of the Central Valley Water Board:

☐ A detailed description of the proposed action, including the proposed method of completing the action.

☐ A time schedule.

☐ A discharge and receiving water quality monitoring plan (before project initiation, during the project, and after project completion, with the appropriate quality control procedures).

☐ CEQA documentation.

☐ Contingency plans.

☐ Identification of alternate water supply (if needed).

☐ Residual waste disposal plans.

Water suppliers with more than one discharge point shall submit:

☐ A Pollution Prevention and Monitoring and Reporting Program Plan which contains all of the elements in Attachment G.

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. Additional Requirements for Application for Intake Water Credits. (To be submitted by Tier 2 Dischargers where treatment is required to reduce pollutants to levels that will comply with effluent limitations prior to discharging to surface waters **and** where the primary source of water for the Discharger is the same as the water body that receives the effluent discharge.)

☐ Provide a written request for an intake water credit on a pollutant-by-pollutant basis;

☐ Provide a completed Attachment H;

☐ Provide the Analytical results of sampling of the intake water for the pollutants for which intake water credits are requested.

11. 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.

12. CERTIFICATION

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

A. Printed Name: _____

B. Signature: _____ C. Date: _____

D. Title: _____