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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CA0081400
ORDER R5-2022-0041

WASTE DISCHARGE REQUIREMENTS FOR THE SIERRA PACIFIC INDUSTRIES SHASTA LAKE DIVISION SHASTA COUNTY

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

Table 1. Discharger Information

Discharger:	Sierra Pacific Industries
Name of Facility:	Shasta Lake Division
Facility Street Address:	3735 El Cajon Avenue
Facility City, State, Zip:	Shasta Lake, CA 96019
Facility County:	Shasta County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
003	Industrial Storm Water	40.676667 degrees	-122.387778 degrees	Unnamed tributary to Churn Creek
004	Industrial Storm Water	40.67473 degrees	-122.38974 degrees	Unnamed tributary to Churn Creek

Table 3. Administrative Information

This Order was Adopted on:	**10 June 2022**
This Order shall become effective on:	**1 August 2022**
This Order shall expire on:	**31 July 2027**
The Discharger shall file a Report of Waste Discharge (ROWD) as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a NPDES permit no later than:	**31 July 2026**
The United States Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Central Valley Region have classified this discharge as follows:	**Minor discharge**

I, Patrick Pulupa, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **10 June 2022**.

Patrick Pulupa Date: 2022.06.24 15:21:41 -07'00'

PATRICK PULUPA, Executive Officer

WASTE DISCHARGE REQUIREMENTS
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TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Sierra Pacific Industries, Shasta Lake Division (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

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

A. Legal Authorities. This Order serves as waste discharge requirements (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 a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDR's in this Order.

B. California Environmental Quality Act (CEQA). Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of Public Resources Code.

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

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

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

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 Discharger owns and operates the Facility subject to this Order. 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.

F. Notification of Interested Persons. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDR's for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

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

THEREFORE, IT IS HEREBY ORDERED that Order R5-2016-0025 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Central Valley Water Board from taking enforcement action for violations of the previous Order.

III. DISCHARGE PROHIBITIONS

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

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

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

D. Discharge except when a minimum of 10:1 (receiving water effluent) flow dilution is achieved between the upstream receiving water (Monitoring Location RSW-001 or RSW-003) and the effluent is prohibited.

E. Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, title 22, section 66261.1 et seq., is prohibited.

F. The discharge of recycle water from log yard sprinkling, commingled recycle water and storm water (i.e., "first flush"), or other waste of recognizable sawmill origin to surface waters or surface water drainage courses is prohibited.

G. The direct discharge of reclaimed (municipal-recycled) water to surface waters or surface water drainage courses is prohibited.

H. Discharge of boiler blowdown and other process water, designated for discharge to the sanitary sewer, to surface waters or surface water drainage courses is prohibited.

I. The discharge of storm water leachate from wood fuel stockpiles to surface water or surface water drainage courses is prohibited. Best management practices (BMP's) must be implemented to prevent such discharge.

J. The discharge of ash, bark, sawdust, or wood to surface waters or surface water drainage courses is prohibited.

K. The discharge of debris (as defined in Attachment A) recognized as originating from the Facility to surface waters or surface water drainage courses is prohibited.

L. The discharge of process wastewater from barking, sawmill, and planing operations, as defined in 40 C.F.R. part 429, is prohibited.

M. Discharge of waste classified as "hazardous" as defined in section 2521(a) of Title 23, California Code of Regulations (CCR), section 2510, et seq., or "designated", as defined in section 13173 of the Water Code, is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Points 003 and 004

1. Final Effluent Limitations – Discharge Points 003 and 004

The Discharger shall maintain compliance with the following effluent limitations at Discharge Points 003 and 004. Unless otherwise specified compliance shall be measured at Monitoring Locations SW-003 and SW-004, as described in the Monitoring and Reporting Program, Attachment E:

a. The Discharger shall maintain compliance with the effluent limitations specified in Table 4:

Table 4. Effluent Limitations

Parameters	Units	Instantaneous Minimum	Instantaneous Maximum
pH	standard units	6.0	9.0

b. **Acute Whole Effluent Toxicity.** 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.

2. Interim Effluent Limitations – Not Applicable

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

The discharge shall not cause the following in the unnamed tributary to Churn Creek**:**

1. **Bacteria**. The six-week rolling geometric mean of Escherichia coli (E. coli) shall not exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and a statistical threshold value (STV) of 320 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

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

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

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

5. **Dissolved Oxygen**:

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

b. The 95-percentile dissolved oxygen concentration to fall below 75 percent of saturation; nor

c. The dissolved oxygen concentration to be reduced below 7.0 mg/L at any time.

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

7. **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.

8. **pH**. The pH to be depressed below 6.5 nor raised above 8.5.

9. **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;

    d. Pesticide concentrations to exceed those allowable by applicable antidegradation policies (see State Water Board Resolution No. 68-16 and 40 CFR section 131.12.);

    e. Pesticide concentrations to exceed the lowest levels technically and economically achievable;

    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; nor

    g. Thiobencarb to be present in excess of 1.0 µg/L.

10. **Radioactivity**:

    a. Radionuclides to be present in concentrations that are harmful 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.

11. **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.

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

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

14. **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.

15. **Temperature**. The natural temperature to be increased by more than 5 degrees Fahrenheit. Compliance to be determined based on the difference in temperature at Monitoring Locations RSW-001 and RSW-002 for Discharge Point 003 and the difference in temperature at Monitoring Locations RSW-003 and RSW-004 for Discharge Point 004.

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

17. **Turbidity**.

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

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

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

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

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

B. Groundwater Limitations

Release of waste constituents from any storage, treatment, or disposal component associated with the Facility, in combination with other sources, shall not cause the underlying groundwater to contain waste constituents greater than background quality or water quality objectives, whichever is greater.

VI. PROVISIONS

A. Standard Provisions

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

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

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

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

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

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

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

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

        The causes for modification include:

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

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

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

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

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

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

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

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

   ii. Controls any pollutant limited in the Order.

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

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

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

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

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

i. Safeguard to electric power failure:

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

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

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

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

The technical report shall:

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

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

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

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

k. 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.

l. 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.

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

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

n. If the Discharger submits a timely and complete Report of Waste Discharge for permit reissuance, this permit shall continue in force and effect until the permit is reissued or the Regional Water Board rescinds the permit.

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

p. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Central Valley Water Board by telephone (530) 224-4845 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Central Valley Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

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

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

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

b. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.

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

d. **Wood Fuel Stockpile Leachate.** The Discharger is considering the addition of discharging wood fuel stockpile leachate to its retention ponds for the option of surface water discharge at Discharge Points 003 and 004. If the Discharger submits a characterization of the wood fuel stockpile leachate and it is determined that the leachate is of similar quality to the storm water after the first flush, this Order may be amended or modified to revise Prohibition I and corresponding parts of the Order to allow discharge of wood fuel stockpile leachate to surface water.

e. **Boiler Blowdown.** The Discharger is considering the addition of discharging boiler blowdown to its recycle pond or retention ponds for the option of surface water discharge at Discharge Points 003 and 004. This Order may be amended or modified to revise Prohibition H and corresponding parts of the Order to allow the discharge of boiler blowdown if the Discharger submits a report (1) characterizing the volume and the water quality of the boiler blowdown for priority pollutants and constituents of concern and (2) describing how the discharge represents best practicable treatment or control.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Storm Water Action Levels and Best Management Practice (BMP) Improvement Evaluation.** If the discharge from Discharge Points 003 or 004 exceeds any industrial storm water action level in Table 5 or any receiving water limitation in section V.A, the Discharger must conduct a BMP Improvement Evaluation and implement, if necessary, BMP improvements to reduce the industrial storm water pollutant concentrations below the action level and/or eliminate the receiving water limit violation. The BMP Improvement Evaluation and proposed BMP improvements must be submitted to the Central Valley Water Board within 60 days of the storm water action level exceedance or receiving water limitation violation date. The BMP improvement(s) must be implemented

as soon as practicable thereafter. The Facility Industrial Storm Water Pollution Prevention Plan (SWPPP) shall be updated in response to any implemented BMP improvements, as appropriate.

This Order includes the following storm water action levels:

Table 5. Storm Water Action Levels

Parameters	Units	Instantaneous Maximum Action Level	Annual Action Level
Chemical Oxygen Demand (COD)	mg/L		120
Oil and Grease	mg/L	25	15
Total Suspended Solids	mg/L	400	100
Tannins and Lignins	mg/L		30
Aluminum, Total Recoverable	ug/L		750
Iron, Total Recoverable	ug/L		1,000
Copper, Total Recoverable	ug/L		33.4
Zinc, Total Recoverable	ug/L		260

i. Compliance with the Annual Storm Water Action Levels will be evaluated as an annual average of analytical results within a reporting year, which is designated in Attachment A as beginning July 1 and ending June 30.

ii. An exceedance of Instantaneous Maximum Storm Water Action Levels occurs when two or more analytical results within a reporting year exceeds the Instantaneous Maximum Storm Water Action Level.

iii. The Storm Water Action Levels in Table 5 are not effluent limitations on the industrial storm water discharge. An exceedance of an action level does not constitute a violation of this Order.

b. **Facility Water Balance Evaluation Study and Work Plan.** In November 2020, the Discharger submitted a “Summary of Stormwater Management Modeling” (SSMM) which analyzed the ability of the site’s ponds to capture storm water from a 100-year annual rainfall scenario. The SSMM recommended that the Discharger increase pump capacity from Retention Pond 1 to the Land Application Area in order to eliminate the need to bypass the Land Application Area and utilize direct discharge from Retention Pond 1 to the unnamed tributary to Churn Creek. The Discharger shall prepare and submit a study of the water balance for the log deck area, land application area, retention ponds, and recycle pond to

determine if there is adequate storm water handling mechanisms in place (1) to contain the first flush and process water in PND-002, including any flushes subsequent to winter log deck sprinkling, and (2) to contain storm water and/or discharge storm water via Discharge Point 004 without needing to bypass the Land Application Area. If the Study determines a need for Facility improvements in order to provide adequate storm water handling, a work plan for improvements must also be submitted with the study that includes a schedule for implementing the proposed improvements. Submittal of the final study shall be in accordance with the time schedule in the Technical Reports Table E-12.

c. **First Flush Standard Operating Procedures.** The Discharger shall prepare and submit standard operating procedures for capturing the first flush after log deck sprinkling has ceased in order to ensure that PND-002 has enough capacity to hold the entire first flush. Submittal of the standard operating procedures shall be in accordance with the time schedule in Technical Reports Table E-12.

d. **Antidegradation Re-evaluation.** As part of an iterative evaluation of compliance with State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California (State Anti-Degradation Policy), the Discharger shall submit an Antidegradation Reevaluation with its Report of Waste Discharge. The Antidegradation Reevaluation must use results of the land discharge and groundwater monitoring, to confirm that any groundwater degradation that has occurred as a result of Facility operations has not resulted in any exceedances of applicable groundwater water quality objectives or in any impacts to beneficial uses.

If the data indicate that exceedances of applicable groundwater water quality objectives or impacts to beneficial uses have occurred, the Discharger shall include a work plan (with an implementation schedule) to implement additional treatment or control measures to further limit any impacts from the ponds. Determination of background groundwater quality for use in the analysis shall be made using the methods described in Title 27 California Code of Regulations Section 20415(e)(10) or other method approved by the Executive Officer.

3. Best Management Practices and Pollution Prevention

a. **Salinity Action Levels**

i. **Salinity Evaluation and Minimization Plan.** The Discharger shall continue to implement a salinity evaluation and minimization plan to identify and address sources of salinity discharged from the Facility. The Salinity Evaluation and Minimization Plan shall be included in the SWPPP described below in Provision VI.C.3. The Discharger shall

evaluate the effectiveness of the salinity evaluation and minimization plan and provide a summary with the Report of Waste Discharge.

ii. **Surface Water Discharge.** If the discharge (SW-003 or SW-004) annual average calendar year electrical conductivity concentration exceeds **625 µmhos/cm** during the term of this Order, the salinity evaluation and minimization plan shall be reviewed and updated. The updated salinity evaluation and minimization plan shall be submitted by **1 March** following the calendar year in which the electrical conductivity concentration exceeded 625 µmhos/cm.

iii. **Land Discharge.** If the pond (PND-001, PND-002, or PND-003) annual average calendar year electrical conductivity concentration exceeds **700 µmhos/cm** during the term of this Order, the salinity evaluation and minimization plan shall be reviewed and updated. The updated salinity evaluation and minimization plan shall be submitted by **1 March** following the calendar year in which the pond electrical conductivity concentration exceeded 700 µmhos/cm.

b. **Storm Water Pollution Prevention Plan (SWPPP)**

i. This Order requires the Discharger to continue to implement a site-specific SWPPP for the Facility. An updated SWPPP that addresses necessary BMPs to ensure compliance with the industrial storm water action levels specified in Table 5 shall be submitted to the Central Valley Water Board by the due date listed in Table E-12 of the Monitoring and Reporting Program. The SWPPP must include the information needed to demonstrate compliance with all requirements of this Order and shall contain at a minimum, the following elements:

(a) Facility name and contact information;

(b) Site map;

(c) List of significant materials;

(d) Description of potential pollutant sources;

(e) Assessment of potential pollutant sources;

(f) Minimum BMPs;

(g) Advanced BMPs, if applicable;

(h) Monitoring Implementation Plan;

(i) Salinity Evaluation and Minimization Plan; and

(j) Date that SWPPP was initially prepared and the date of each SWPPP amendment, if applicable.

ii. **BMP Summary Table.** The Discharger shall prepare a table, to be included in the SWPPP, summarizing each identified area of industrial

activity, the associated industrial pollutant sources, the industrial pollutants, and the BMPs being implemented.

iii. **SWPPP Revisions.** The Discharger shall amend the SWPPP whenever there is a change in construction, site operation, or maintenance, which may affect the discharge of significant quantities of pollutants to storm water or groundwater. The SWPPP must also be amended for any of the following reasons:

(a) Exceedances of the storm water action levels;

(b) Receiving water limit violations;

(c) Exceedances of surface water limitations;

(d) Exceedances of groundwater limitations;

(e) Bypass of approved discharge location or overflow from a pond that results in discharge to the unnamed tributary to Churn Creek;

(f) Discharge of process water to the unnamed tributary to Churn Creek;

(g) Discharge of material of discernible sawmill origin, such as ash, bark, sawdust, wood, etc., of greater than 2.54 centimeters;

(h) Discharge from PND-002 to surface water;

(i) Discharge of hazardous waste; or

(j) The Discharger has not achieved the general objectives of controlling pollutants in the storm water discharges.

If the SWPPP has been significantly revised, the revised SWPPP shall be submitted to the Central Valley Water Board for review.

iv. A copy of the SWPPP shall be maintained at the Facility.

c. **Facility-Specific BMP – First Flush Collection.** Each year, after cessation of log yard sprinkling, the Discharger shall collect the first 2 inches of rainfall from the log deck area plus any process wastewater remaining in PND-002 when collection of the flush commences (i.e., “first flush” or “comingled log deck sprinkle water and storm water”). The first flush shall be contained within PND-002. The first flush shall not be discharged to PND-001 or PND-003 and shall not reach surface water. This Facility-specific BMP may be modified by approval of the Executive Officer.

4. Construction, Operation and Maintenance Specifications

a. **Retention Ponds and Log Deck Recycle Pond Operating Requirements**

i. No waste constituent shall be released, discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes a violation of the Groundwater Limitations of this Order.

ii. Treatment, storage, and disposal facilities shall not cause pollution or a nuisance as defined by Water Code section 13050.

iii. The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

iv. Public contact with wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.

v. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes. In particular,

   (a) An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface;

   (b) Weeds shall be minimized; and

   (c) Dead algae, vegetation, and debris shall not accumulate on the water surface.

vi. Freeboard shall never be less than 2 feet (measured vertically to the lowest point of overflow) except if lesser freeboard does not threaten the integrity of the pond, no overflow of the pond occurs, and lesser freeboard is due to direct precipitation of storm water runoff occurring as a result of annual precipitation with greater than 100-year recurrence interval, or a storm event with an intensity greater than a 25-year, 24-hour storm event. As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.

vii. The Log Deck Recycle Pond (PND-002) in combination shall have enough capacity to store the runoff from the log deck resulting in the cumulative total of 2 inches of rainfall measured at the Facility according to section IX.A of the MRP, Attachment E. The cumulative total of 2 inches of rainfall shall commence on the date the sprinkling of the log deck ceases for the wet season.

viii. Objectionable odors originating at the Facility shall not be perceivable beyond the limits of the pond areas (or property owned by the Discharger).

ix. As a means of discerning compliance with item viii above, the dissolved oxygen content in the upper zone (1 foot) of water in ponds shall not be less than 1.0 mg/L for three consecutive weekly sampling events. If the DO in any single pond is below 1.0 mg/L for three consecutive sampling events, the Discharger shall report the findings to the Central Valley Water Board in writing within 10 days and shall include a specific plan to resolve the low DO results within 30 days.

x. Ponds shall not have pH less than 6.0 or greater than 9.0.

xi. Newly constructed or rehabilitated berms or levees (excluding internal beams that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.

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

6. Other Special Provisions

a. **Sludge, Wood Waste, and/or Ash Management**

i. Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner consistent with the Consolidated Regulations for the Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in Title 27, California Code of Regulations (CCR), Division 2, Subdivision 1, Section 20005, et seq.

ii. **Ash Management Plan.** The Discharger shall continue to implement their ash management plan and submit annual reports to the Central Valley Water Board. The annual reports shall describe at a minimum:

(a) Sources and amounts of ash generated annually;

(b) Location(s) of on-site storage and description of containment area; and

(c) Plans for ultimate disposal. For landfill disposal include the present classification of the landfill and the name and location of the landfill.

iii. Any proposed change in sludge or ash use or disposal practice shall be reported to the Executive Officer at least 30 days in advance of the change.

iv. Non-hazardous fly ash removed from the Facility shall be:

(a) Beneficially reused, such as for soil amendment;

(b) Disposed in a dedicated unit consistent with Title 27, Section 20200(b); or

(c) Disposed in a Class III landfill consistent with Title 27, Section 20200(d).

Any other use shall require approval by the Executive Officer.

v. This Order does not authorize storage, transportation, or disposal of ash or other wastes characterized as hazardous wastes. Appropriate separate regulatory coverage must be secured for such activities.

vi. Management of wood fuel stockpiles and ash stockpiles shall not adversely affect groundwater quality.

b. **Municipal Recycled Water Use.** The use of recycled water at the Facility shall be in accordance with requirements set forth in California Code of Regulations (CCR), Title 22, Chapter 3.

c. **Discharge Prioritization.** Industrial stormwater discharge shall be prioritized such that stormwater shall be sent to the Land Application Area to be collected in Retention Pond 2 (PND-003) for discharge to Discharge Point 004. Connections exist between Retention Pond 1 (PND-001) and PND-003 to bypass the Land Application Area in urgent disposal conditions. Bypass of the Land Application Area or use of Discharge Point 003 shall only be used when urgent conditions arise that require immediate discharge to surface waters. The Facility shall be operated and maintained in such a way to avoid these potentially urgent discharge scenarios.

7. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

A. Industrial Storm Water Action Levels (section VI.C.2.a, Table 5). The storm water action levels in Table 5 are not effluent limitations on the industrial storm water discharge. An exceedance of an action level does not constitute a violation of this Order. The action levels are the pollutant concentrations above which the Central Valley Water Board has determined represent a level of concern and require further evaluation of the Discharger's SWPPP as it relates to controlling the discharge of the subject pollutant from the Facility. Exceedance of an action level requires the Discharger to conduct a BMP Improvement Evaluation in accordance with section VI.C.2.a.

B. Dissolved Oxygen Receiving Water Limitation (Section V.A.5.a-c). Weekly receiving water monitoring is required in the Monitoring and Reporting Program (Attachment E) and is sufficient to evaluate the impacts of the discharge and compliance with this Order. Weekly receiving water monitoring data, measured at monitoring locations RSW-001, RSW-002, RSW-003, and RSW-004 will be used to determine compliance with part "c" of the dissolved oxygen receiving water limitation

to ensure the discharge does not cause the dissolved oxygen concentrations in the unnamed tributary to Churn Creek to be reduced below 7.0 mg/L at any time. However, should more frequent dissolved oxygen and temperature receiving water monitoring be conducted, Central Valley Water Board staff may evaluate compliance with parts “a” and “b”.

A.

ATTACHMENT A – DEFINITIONS

1Q10
The lowest one-day flow with an average reoccurrence frequency of once in ten years.

7Q10
The lowest average seven consecutive day flow with an average reoccurrence frequency of once in ten years

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

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

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

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

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

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

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

Best Management Practices
Those control measures taken to mitigate changes to both quantity and quality of runoff caused through changes to land use. Specifically, those measures that are required to reduce or prevent pollutants in industrial storm water discharges in compliance with BAT/BCT.

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

Calendar Month(s).
A period of time from a day of one month to the day before the corresponding day of the next month if the corresponding day exists, or if not to the last day of the next month (e.g., from January 1 to January 31, from June 15 to July 14, or from January 31 to February 28).

Calendar Quarter
A period of time defined as three consecutive calendar months.

Calendar Year
A period of time defined as twelve consecutive calendar months.

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

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

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

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

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

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

Debris
Debris is defined as woody material such as bark, twigs, branches, heartwood, or sapwood that will not pass through a 2.54 cm (1.0 in) diameter round opening and is present in the discharge from a wet storage facility.

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

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

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

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

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

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

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

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

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

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

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

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

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

Method Detection Limit (MDL)
MDL is the minimum measured concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in in 40 C.F.R. Part 136, Attachment B.

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

Mixing Zone
Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

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

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

Ocean Waters
The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

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

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

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

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.

Process Wastewater
Process wastewater shall include log deck sprinkling water and first flush industrial storm water (defined under Storm Water below) from the log deck.

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

Reporting Year
A reporting year for determination of compliance with storm water action levels shall be designated as July 1 through June 30.

Response

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

Satellite Collection System
The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

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

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

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

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

where:

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

Statewide Toxicity Provisions
Refers to Section III.B and Section IV.B of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

Storm Water
Storm water runoff from the site originates from a 12.8-acre log yard area (Industrial Storm Water) and from a 40-acre general industrial storm water area (General Industrial Storm Water). The site plan in Attachment C delineates these areas and is defined as follows.

> **First Flush Industrial Storm Water.** First flush industrial storm water is considered process wastewater and is prohibited from being discharged. First flush industrial storm water is defined as industrial storm water runoff from the first 2 inches of rainfall collected from the industrial storm water area after cessation of log deck sprinkling. The first flush collection may occur more than once in a wet season if the Discharger intermittently sprinkles logs with PND-002 water during the wet season.

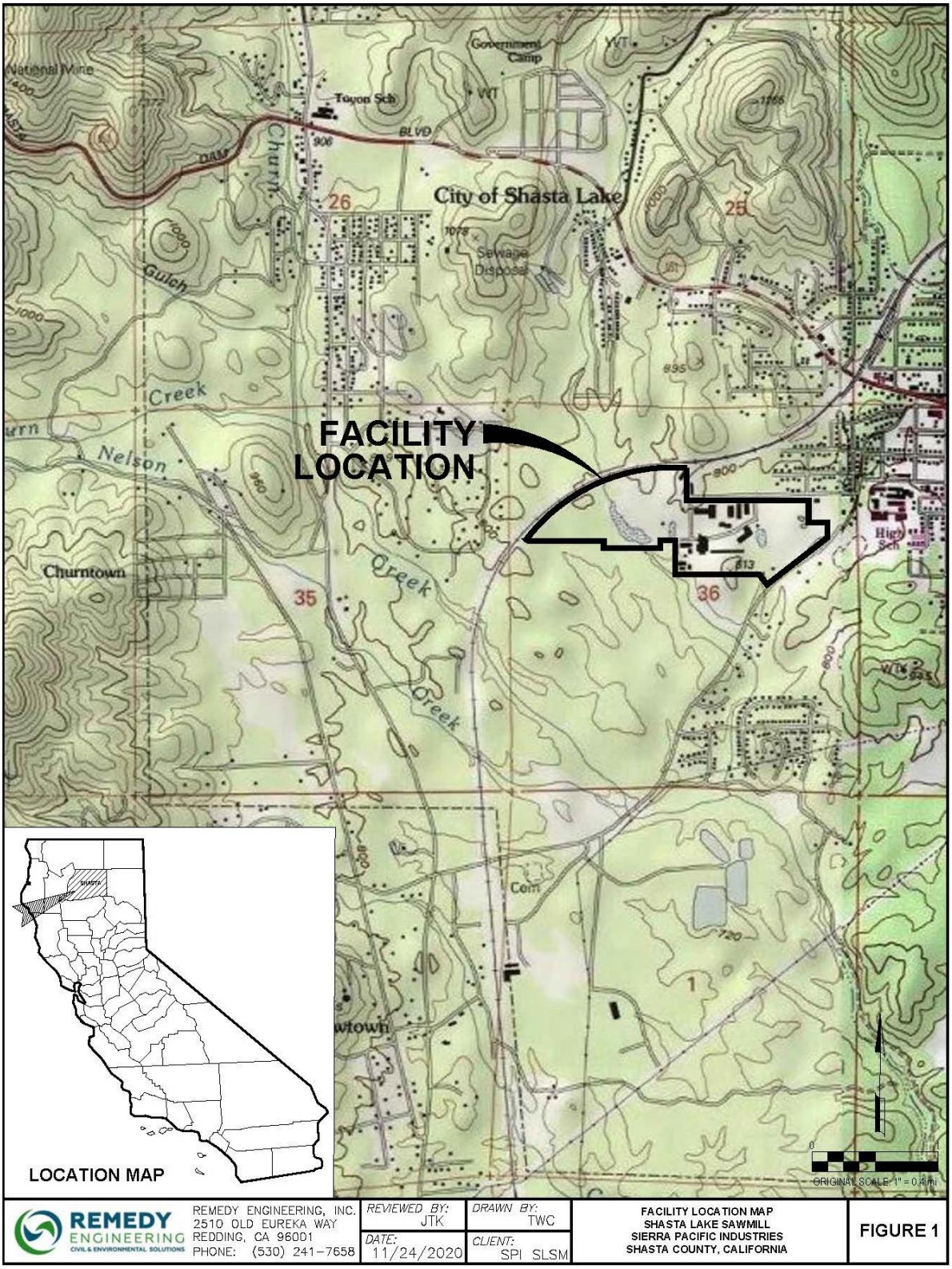
Industrial Storm Water. This Order regulates discharges of industrial storm water from the industrial storm water area. Industrial storm water is collected in PND-001 after log deck sprinkling water and first flush industrial storm water has been collected in PND-002. Industrial storm water from PND-001 is applied to the Land Application Area, and runoff from the Land Application Area is routed to PND-003. Direct connection between PND-001 and PND-003 bypassing the Land Application Area exist for storage and disposal of high intensity storm events in situations where the inflow to PND-001 exceeds the transfer rate to the Land Application Area. Discharge points are located in PND-001 and PND-003 for discharge of industrial storm water to an unnamed tributary to Churn Creek. Pond usage and industrial storm water discharge prioritizes use of the Land Application Area and discharge out of PND-003 to the maximum extent possible when a discharge event is warranted.

General Industrial Storm Water. This Order does not regulate discharges of general industrial storm water from Drainage Areas 1, 2, and 3. Storm water runoff from Drainage Areas 1, 2, and 3 is directed to discharge to an unnamed tributary to Churn Creek via outfalls SW-1 and SW-2 under the State Water Resources Control Board (State Water Board) Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001.

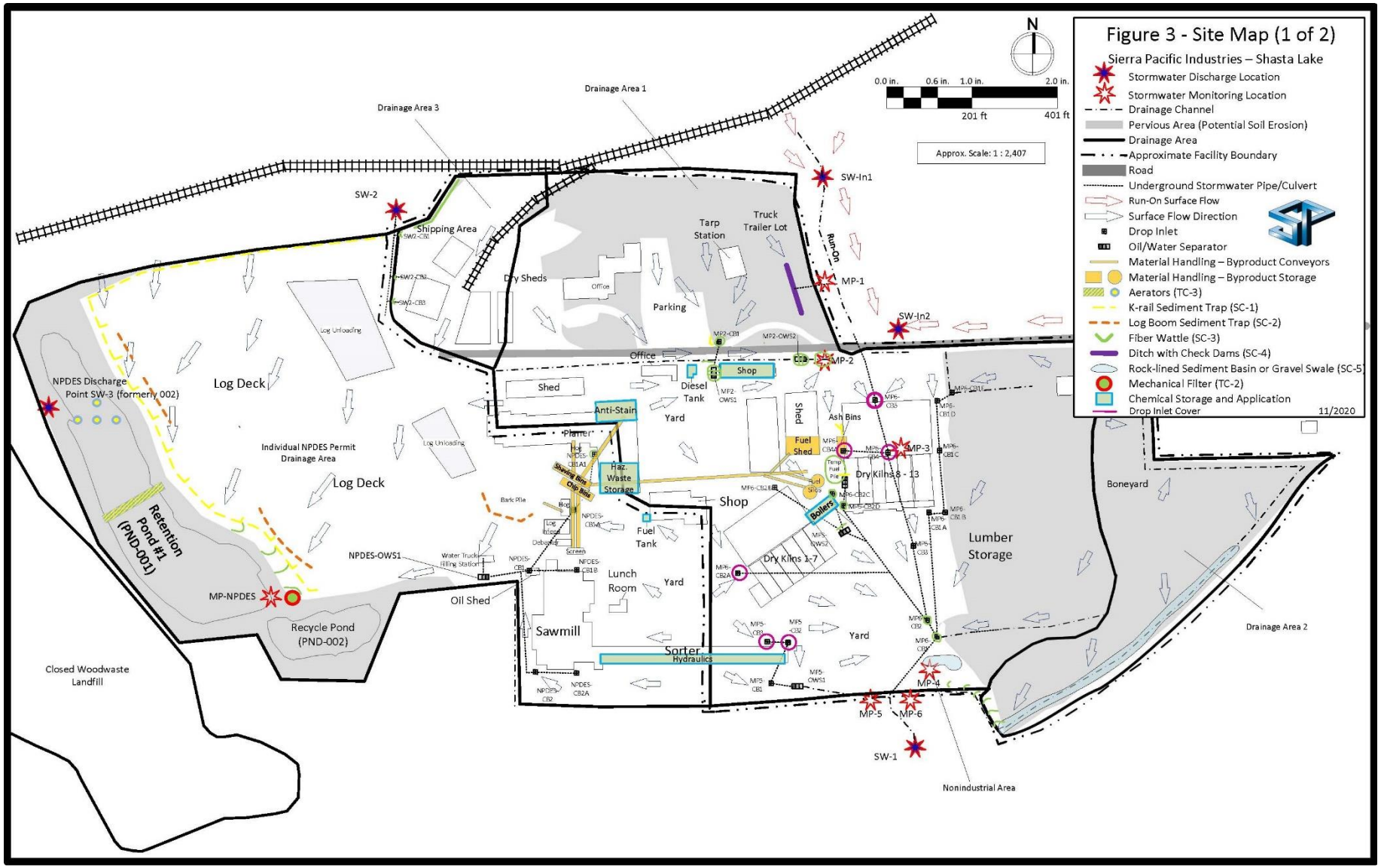
Test of Significant Toxicity (TST)
A statistical approach used to analyze aquatic toxicity test data, as described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1.

B.

ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC



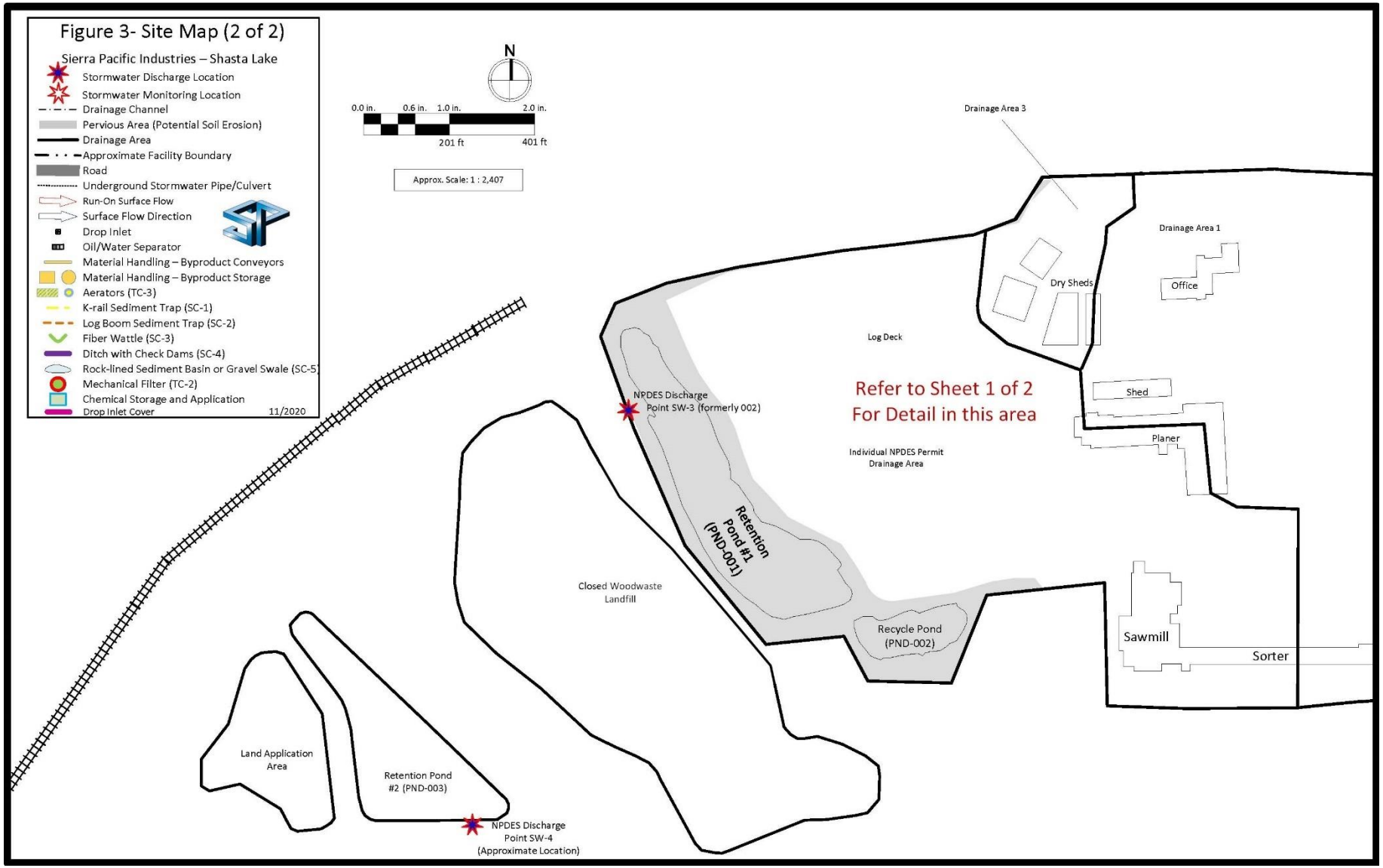


Figure 3- Site Map (2 of 2)
Sierra Pacific Industries – Shasta Lake
Stormwater Discharge Location
Stormwater Monitoring Location
Drainage Channel
Pervious Area (Potential Soil Erosion)
Drainage Area
Approximate Facility Boundary
Road
Underground Stormwater Pipe/Culvert
Run-On Surface Flow
Surface Flow Direction
Drop Inlet
Oil/Water Separator
Material Handling – Byproduct Conveyors
Material Handling – Byproduct Storage
Aerators (TC-3)
K-rail Sediment Trap (SC-1)
Log Boom Sediment Trap (SC-2)
Fiber Wattle (SC-3)
Ditch with Check Dams (SC-4)
Rock-lined Sediment Basin or Gravel Swale (SC-5)
Mechanical Filter (TC-2)
Chemical Storage and Application
Drop Inlet Cover
11/2020
N
0.0 in.
0.6 in.
1.0 in.
2.0 in.
201 ft
401 ft
Approx. Scale: 1 : 2,407
Drainage Area 3
Drainage Area 1
Dry Sheds
Office
Log Deck
Refer to Sheet 1 of 2
For Detail in this area
Shed
Planer
NPDES Discharge
Point SW-3 (formerly 002)
Individual NPDES Permit
Drainage Area
Retention
Pond #1
(PND-001)
Closed Woodwaste
Landfill
Recycle Pond
(PND-002)
Sawmill
Sorter
Land Application
Area
Retention Pond
#2 (PND-003)
NPDES Discharge
Point SW-4
(Approximate Location)

D.

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply:

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

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

B. Need to Halt or Reduce Activity Not a Defense

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

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

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

E. Property Rights

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

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

F. Inspection and Entry

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

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

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

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

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

G. Bypass

1. Definitions

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

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

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not

subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. section 122.41(m)(2).)

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

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

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

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

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

5. **Notice**

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

    b. **Unanticipated bypass.** The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). The notice shall be sent to the Central Valley Water Board. As of 21 December 2023, all notices shall be submitted electronically to the initial recipient (State Water Board's California Integrated Water Quality System (CIWQS) Program website (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/), defined in

Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. Part 3, section 122.22, and 40 C.F.R. Part 127. (40 C.F.R. section 122.41(m)(3)(ii).)

H. Upset

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

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

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

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

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

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

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

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

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

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

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

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

    a. The method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter, or;

    b. The method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is

high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge;

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

IV. STANDARD PROVISIONS – RECORDS

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

B. Records of monitoring information shall include:

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

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

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

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

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

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

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

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

B. Signatory and Certification Requirements

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

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

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

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

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

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

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

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

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

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

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

C. Monitoring Reports

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

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Central Valley Water Board or State Water Board for reporting the results of monitoring, sludge use, or disposal practices. As of 21 December 2016, all reports and forms must be submitted electronically to the initial recipient, defined in Standard Provisions – Reporting

V.J, and comply with 40 C.F.R. part 3, section 122.22, and 40 C.F.R. part 127. (40 C.F.R. section 122.41(l)(4)(i).)

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

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

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

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

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

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

sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. section 122.41(l)(6)(i).)

F. Planned Changes

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

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

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

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

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Central Valley Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. section 122.41(l)(7).)

I. Other Information

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

J. Initial Recipient for Electronic Reporting Data

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

VI. STANDARD PROVISIONS – ENFORCEMENT

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

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

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

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

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

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

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

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

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

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

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

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

E.

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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Tables

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

I. GENERAL MONITORING PROVISIONS

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

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

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

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

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

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

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

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

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

G. The Discharger shall 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.

II. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
003	SW-003	A location where a representative sample of storm water from retention pond PND-001 can be obtained prior to discharge to the receiving water. Latitude: 40.67544 degrees, Longitude: -122.38582 degrees
	RSW-001	In the unnamed tributary to Churn Creek, approximately 250 feet upstream of Discharge Point 003. Latitude: 40.67740 degrees, Longitude: -122.38807 degrees

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
	RSW-002	In the unnamed tributary to Churn Creek, approximately 600 feet downstream of Discharge Point 003. Latitude: 40.67514 degrees, Longitude: -122.38667 degrees
004	SW-004	A location where a representative sample of storm water from retention pond PND-003 can be obtained prior to discharge to the receiving water. Latitude: 40.67376 degrees, Longitude: -122.38974 degrees
	RSW-003	In the unnamed tributary to Churn Creek, approximately 500 feet upstream of Discharge Point 004 or as otherwise approved by the Executive Officer. Latitude: 40.67571 degrees, Longitude: -122.39053 degrees
	RSW-004	In the unnamed tributary to Churn Creek, approximately 600 feet downstream of Discharge Point 004, or as otherwise approved by the Executive Officer. Latitude: 40.67339 degrees, Longitude: -122.38815 degrees
	GW-001 through GW-004	Groundwater Monitoring Wells
	PND-001	Retention Pond 1
	PND-002	Log Deck Recycle Pond
	PND-003	Retention Pond 2

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

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations SW-003 and SW-004

1. The Discharger shall monitor industrial storm water at Monitoring Locations SW-003 and SW-004 when discharging to the unnamed tributary to Churn Creek in accordance with Table E-2 and the testing requirements described in section IV.A.2 below:

Table E-2. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	Continuous
Oil and Grease	mg/L	Grab	2/Year
pH	standard units	Grab	1/Week
Total Suspended Solids (TSS)	mg/L	Grab	1/Week
Electrical Conductivity @ 25 degrees Celsius	µmhos/cm	Grab	1/Week
Temperature	Degrees F	Grab	1/Week
Dissolved Oxygen	mg/L	Grab	1/Week
Settleable Solids	mL/L	Grab	1/Week
Total Dissolved Solids	mg/L	Grab	1/Week
Turbidity	NTU	Grab	1/Week
Copper, Total Recoverable and Dissolved	µg/L	Grab	1/Month
Lead, Total Recoverable	µg/L	Grab	1/Month
Zinc, Total Recoverable and Dissolved	µg/L	Grab	1/Month
Aluminum, Total Recoverable and Filtered	µg/L	Grab	1/Month
Iron, Total Recoverable and Filtered	mg/L	Grab	1/Month
Manganese, Filtered	mg/L	Grab	1/Month
Hardness, Total (as CaCO3)	mg/L	Grab	1/Month
Dissolved Organic Carbon	mg/L	Grab	1/Quarter
Alkalinity	mg/L	Grab	1/Month
Chemical Oxygen Demand	mg/L	Grab	1/Month
Tannins and Lignins	mg/L	Grab	1/Month
Priority Pollutants and Other Constituents of Concern	See Section IX.C	See Section IX.C	See Section IX.C
Acute Whole Effluent Toxicity	See Section V.A	See Section V.A	See Section V.A
Chronic Whole Effluent Toxicity	See Section V.B	See Section V.B	See Section V.B

2. **Table E-2 Testing Requirements**. The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table E-2:

    a. **Applicable to all parameters (except flow).** Parameters shall be analyzed using the analytical methods described in 40 CFR part 136 or by methods approved by the Central Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be

modified by the Executive Officer to another 40 CFR part 136 allowed sample type.

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

c. **Temperature, pH, Hardness, and Dissolved Oxygen.** The effluent samples for temperature, pH, hardness, and dissolved oxygen shall be taken approximately the same time and on the same date with the receiving waters for these parameters.

d. **Turbidity.** Turbidity shall be determined by either individual samples or by samples taken over an averaging period. For averaging periods, a minimum of four samples per day shall be collected at each monitoring location for a period of up to four days during discharge. Samples collected for averaging must be spaced at least three hours apart.

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

f. **Filtered metals.** Metals with secondary maximum contaminant levels (**manganese, iron, and aluminum)** shall be determined from samples that have been passed through a 1.5-micron filter to reduce filterable residue. Metal constituents will then be analyzed using the acid-soluble procedure described in EPA Approved Methods as appropriate, or other methods approved by the Central Valley Water Board.

g. **Dissolved Organic Carbon monitoring** shall be conducted concurrently with pH and hardness sampling.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

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

1. **Routine Monitoring Frequency** – The Discharger shall perform routine acute toxicity testing twice per calendar year at each discharge point utilized that calendar year.

2. **Sample Types** – The Discharger may use flow-through or static renewal testing. For static renewal testing, the samples shall be grab samples and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location SW-003 if Discharge Point 003 was utilized during the calendar year. The effluent samples shall be taken at Monitoring Location SW-004 if Discharge Point 004 was utilized.

3. **Test Species** – Test species shall be rainbow trout (*Oncorhynchus mykiss*).

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

5. **Test Failure** – If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger must conduct a replacement test as soon as possible, as specified in subsection A.6 below.

6. **Replacement Test** – When a required toxicity test for routine monitoring is not completed, a new toxicity test to replace the toxicity test that was not completed shall be initiated as soon as possible. The new toxicity test shall not be used to substitute for any other required toxicity tests.

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

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

1. **Routine Monitoring Frequency** – The Discharger shall perform routine chronic toxicity testing once per calendar year at each discharge point that is utilized during that calendar year.

2. **Sample Types** – Effluent samples shall be grab samples and shall be representative of the volume and quality of the discharge. If Discharge Point 003 was utilized during the calendar year, the effluent sample shall be a grab sample taken from Monitoring Location SW-003. If Discharge Point 004 was utilized during the calendar year, the effluent sample shall be a grab sample taken from Monitoring Location SW-004.

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:

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

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

c. The green algae, *Selenastrum capricornutum* (growth test).

5. **Test Methods** – Discharger shall conduct the chronic toxicity tests on effluent samples at the in-stream waste concentration for the discharge in accordance with species and test methods in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/821/R02/013, 2002; Table IA, 40 C.F.R. part 136).

6. **Dilution and Control Water** – Dilution water and control water shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used. The Discharger may use a low-hardness control water to better match the low hardness in the effluent. The chronic toxicity testing shall be performed using the dilution series identified in Table E-3, below.

Table E-3. Chronic Toxicity Dilution Series

Samples	Dilution%	Dilution%	Dilution%	Dilution%	Dilution%	Controls
% Effluent	100	75	50	25	12.5	0
% Control Water	0	25	50	75	87.5	100

7. **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, as specified in subsection B.8, below. 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 the Method Manual.

8. **Replacement Test** – When a required toxicity test for routine monitoring is not completed, a new toxicity test to replace the toxicity test that was not completed shall be initiated as soon as possible. The new toxicity test shall not be used to substitute for any other required toxicity tests.

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

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

D. WET Testing Reporting Requirements. The Discharger shall submit the full laboratory report for all toxicity testing as an attachment to CIWQS for the reporting period. 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. Routine chronic toxicity monitoring results shall be reported to the Central Valley Water Board with the monthly self-monitoring report, 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

    Additionally, the monthly 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 type, i.e., routine or compliance monitoring.

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). The 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

A. Monitoring Locations PND-001, PND-002, and PND-003

1. The Discharger shall monitor storm water retention ponds PND-001 and PND-003 and log deck recycle pond PND-002 in accordance with Table E-4 and the testing requirements described in section VI.A.2 below:

Table E-4 Land Discharge Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Freeboard	feet	Visual	1/Week
pH	standard units	Grab	1/Month
Dissolved Oxygen	mg/L	Grab	1/Month
Electrical Conductivity @ 25 degrees C	µmhos/cm	Grab	1/Month
Chemical Oxygen Demand	mg/L	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Copper, Total Recoverable	µg/L	Grab	1/Quarter
Zinc, Total Recoverable	µg/L	Grab	1/Quarter
Iron, Total Recoverable and Filtered	µg/L	Grab	1/Quarter
Manganese, Filtered	µg/L	Grab	1/Quarter
Aluminum, Total Recoverable and Filtered	µg/L	Grab	1/Quarter
Tannins and Lignins	mg/L	Grab	1/Quarter
Settled Matter Depth	Feet, inches	Visual	1/Year prior to rainy season

2. **Table E-4 Testing Requirements**. The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table E-4:

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

   b. **Hand-held field meter.** A hand-held field meter may be used for **electrical conductivity, pH,** and **dissolved oxygen**, 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 MRP shall be maintained at the Facility.

c. **Filtered metals.** Metals with secondary maximum contaminant levels (**manganese, iron, and aluminum**) shall be determined from samples that have been passed through a 1.5-micron filter to reduce filterable residue. Metal constituents will then be analyzed using the acid-soluble procedure described in EPA Approved Methods as appropriate, or other methods approved by the Central Valley Water Board.

3. The Discharger shall inspect the retention ponds and the log deck recycle pond on a regular basis to check for failure and/or leakage.

4. In conducting pond monitoring, a log shall be kept of the pond conditions. Attention shall be given to the presence or absence of:

   a. Visible films, sheens, or coatings;

   b. Odor;

   c. Fungi, slimes, or objectionable growths;

   d. Floating or suspended matter; and

   e. Discoloration.

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Locations RSW-001 and RSW-002

1. When discharges to Discharge Point 003 occur, the Discharger shall monitor the unnamed tributary to Churn Creek at Monitoring Locations RSW-001 and RSW-002 in accordance with Table E-5 and the testing requirements described in section A.2 below:

Table E-5. Receiving Water Monitoring Requirements – Discharge Point 003

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Gauge	1/Day
pH	standard units	Grab	1/Week
Dissolved Oxygen	mg/L	Grab	1/Week
Electrical Conductivity @ 25 degrees C	µmhos/cm	Grab	1/Week
Temperature	Degrees F	Grab	1/Week
Turbidity	NTU	Grab	1/Week
Copper, Total Recoverable and Dissolved	µg/L	Grab	1/Month
Lead, Total Recoverable	µg/L	Grab	1/Month
Zinc, Total Recoverable and Dissolved	µg/L	Grab	1/Month

Parameter	Units	Sample Type	Minimum Sampling Frequency
Iron, Total Recoverable and Filtered	µg/L	Grab	1/Month
Manganese, Filtered	µg/L	Grab	1/Month
Hardness, Total (as $CaCO_3$)	mg/L	Grab	1/Month
Dissolved Organic Carbon	mg/L	Grab	1/Quarter
Tannins and Lignins	mg/L	Grab	1/Month
Aluminum, Total Recoverable and Filtered	µg/L	Grab	1/Year
Priority Pollutants and Other Constituents of Concern	See Section IX.C	See Section IX.C	See Section IX.C

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

    a. **Applicable to all parameters.** Samples shall be collected during the first 24 hours from the first discharge after the dry season during daytime business hours and according to the sampling frequency in Table E-5 thereafter. Receiving water sampling shall be concurrent with effluent (storm water) sampling, when applicable.

    b. **Applicable to all parameters.** Parameters shall be analyzed using the analytical methods described in 40 C.F.R. part 146 or by methods approved by the Central Valley Water Board or the State Water Board.

    c. **Hand-held field meter.** A hand-held field meter may be used for **temperature, electrical conductivity, dissolved oxygen, turbidity,** and **pH**, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this MRP shall be maintained at the Facility.

    d. **Temperature, pH, Hardness, and Dissolved Oxygen.** The receiving water samples for temperature, pH, hardness, and dissolved oxygen shall be taken approximately the same time and on the same date as the effluent samples for these parameters.

    e. **Turbidity.** Turbidity shall be determined by either individual samples or by samples taken over an averaging period. For averaging periods, a minimum of four samples per day shall be collected at each monitoring location for a period of up to four days during discharge. Samples collected for averaging must be spaced at least three hours apart.

    f. **Filtered metals.** Metals with secondary maximum contaminant levels (**manganese, iron, and aluminum**) shall be determined from samples

that have been passed through a 1.5-micron filter to reduce filterable residue. Metal constituents will then be analyzed using the acid-soluble procedure described in EPA Approved Methods as appropriate, or other methods approved by the Central Valley Water Board.

g. **Dissolved Organic Carbon monitoring** shall be conducted concurrently with pH and hardness sampling.

3. In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-001 and RSW-002 when discharging to the unnamed tributary to Churn Creek at Discharge Point 003. Attention shall be given to the presence of:

   a. Floating or suspended matter;

   b. Discoloration;

   c. Bottom deposits;

   d. Aquatic life;

   e. Visible films, sheens, or coatings;

   f. Fungi, slimes, or objectionable growths; and

   g. Potential nuisance conditions.

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

B. Monitoring Locations RSW-003 and RSW-004

1. When discharges to Discharge Point 004 occur, the Discharger shall monitor the unnamed tributary to Churn Creek at Monitoring Locations RSW-003 and RSW-004 in accordance with Table E-6 and the testing requirements described in section B.2 below as follows:

Table E-6. Receiving Water Monitoring Requirements – Discharge Point 004

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Gauge	1/Day
pH	standard units	Grab	1/Week
Dissolved Oxygen	mg/L	Grab	1/Week
Electrical Conductivity @ 25 degrees C	µmhos/cm	Grab	1/Week
Temperature	Degrees F	Grab	1/Week
Turbidity	NTU	Grab	1/Week

Parameter	Units	Sample Type	Minimum Sampling Frequency
Copper, Total Recoverable and Dissolved	µg/L	Grab	1/Month
Lead, Total Recoverable	µg/L	Grab	1/Month
Zinc, Total Recoverable and Dissolved	µg/L	Grab	1/Month
Iron, Total Recoverable and Filtered	µg/L	Grab	1/Month
Manganese, Filtered	µg/L	Grab	1/Month
Hardness, Total (as $CaCO_3$)	mg/L	Grab	1/Month
Tannins and Lignins	mg/L	Grab	1/Month
Dissolved Organic Carbon	mg/L	Grab	1/Quarter
Aluminum, Total Recoverable and Filtered	µg/L	Grab	1/Year
Priority Pollutants and Other Constituents of Concern	See Section IX.C	See Section IX.C	See Section IX.C

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

    a. **Applicable to all parameters**. Samples shall be collected during the first 24 hours from the first discharge after the dry season during daytime business hours and according to the sampling frequency in Table E-6 thereafter. Receiving water sampling shall be concurrent with effluent (storm water) sampling, when applicable.

    b. **Applicable to all parameters.** Parameters shall be analyzed using the analytical methods described in 40 C.F.R. part 146 or by methods approved by the Central Valley Water Board or the State Water Board.

    c. **Hand-held field meter.** A hand-held field meter may be used for **temperature, electrical conductivity, dissolved oxygen, turbidity**, and **pH**, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this MRP shall be maintained at the Facility.

    d. **Temperature, pH, Hardness, and Dissolved Oxygen.** The receiving water samples for temperature, pH, hardness, and dissolved oxygen shall

be taken approximately the same time and on the same date as the effluent samples for these parameters.

e. **Turbidity.** Turbidity shall be determined by either individual samples or by samples taken over an averaging period. For averaging periods, a minimum of four samples per day shall be collected at each monitoring location for a period of up to four days during discharge. Samples collected for averaging must be spaced at least three hours apart.

f. **Filtered metals.** Metals with secondary maximum contaminant levels (**manganese, iron, and aluminum**) shall be determined from samples that have been passed through a 1.5-micron filter to reduce filterable residue. Metal constituents will then be analyzed using the acid-soluble procedure described in EPA Approved Methods as appropriate, or other methods approved by the Central Valley Water Board.

g. **Dissolved Organic Carbon monitoring** shall be conducted concurrently with pH and hardness sampling.

C. Monitoring Locations MW-001 through MW-004

1. Groundwater monitoring at MW-001, MW-002, MW-003, MW-004, and any new groundwater monitoring wells shall include, at a minimum, the following:

Table E-7. Groundwater Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Depth to Groundwater	±0.01 feet	Measurement	1/Quarter
Groundwater Elevation	±0.01 feet	Calculated	1/Month
Gradient	feet/feet	Calculated	1/Month
Gradient Direction	degrees	Calculated	1/Month
Separation from pond bottom	feet	Calculated	1/Month
Electrical Conductivity @ 25 degrees C	µmhos/cm	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Fixed Dissolved Solids	mg/L	Grab	1/Quarter
pH	standard units	Grab	1/Quarter
Arsenic, Dissolved	µg/L	Grab	1/Quarter
Iron, Filtered	µg/L	Grab	1/Quarter
Manganese, Filtered	µg/L	Grab	1/Quarter
Standard Minerals	µg/L	Grab	1/Year

2. **Table E-7 Testing Requirements**. The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table E-7:

a. **Prior to construction and/or beginning a sampling program** of any new groundwater monitoring wells, the Discharger shall submit plans and

specifications to the Central Valley Water Board for approval. Once installed, all new wells shall be added to the monitoring network (which currently consists of Monitoring Wells MW-001, MW-002, MW-003, and MW-004 and shall be sampled and analyzed according to the schedule below. All samples shall be collected using approved EPA methods.

b. **After measuring water levels and prior to collecting samples,** each monitoring well shall be adequately purged to remove water that has been standing within the well screen and casing that may not be chemically representative of formation water. Purging shall continue until for at least three well volumes or until temperature, pH, and electrical conductivity have stabilized.

c. **Groundwater elevation** shall be determined based on depth-to-water measurements from a surveyed measuring point elevation on the well. The groundwater elevation shall be used to calculate the direction and gradient of groundwater flow, which must be reported.

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

e. **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).

f. **Hand-held field meter.** A hand-held field meter may be used for **electrical conductivity** and **pH**, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this MRP shall be maintained at the Facility.

g. **Filtration.** For constituents with Secondary MCLs listed in Title 22, Table 64449-A (e.g., **iron and manganese**), samples shall be passed through a 1.5-micron filter to reduce filterable residue or as otherwise approved by the Executive Officer. Metal constituents will then be analyzed using the acid-soluble procedure described in EPA Approved Methods as appropriate, or other methods approved by the Central Valley Water Board. For all other constituents, samples shall be filtered with a 0.45-micron filter prior to preservation, digestion, and analysis.

IX. OTHER MONITORING REQUIREMENTS

A. Precipitation Monitoring

1. Precipitation information shall be collected as follows and reported in the monthly SMR:

Table E-8. Precipitation Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Precipitation	inches	Gauge	1/Day

B. Ash Monitoring

1. Wood ash information shall be collected and reported in the SMRs in accordance with the table below.

Table E-9. Ash Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Ash Volume Generated	Dry-tons	Continuous	1/Month	
Ash Volume Stored at Facility	Dry-tons	Continuous	1/Month	
Ash Volume Removed From Facility	Dry-tons	Continuous	1/Month	
Ash Liming Capacity	equiv. % $CaCO_3$	Continuous	1/Month	UC Davis Method 440 or AOAC 955.01
Ash Total Phosphorus	mg/kg	Composite	1/Quarter	
Moisture Content	% Moisture	Composite	1/Quarter	
pH	standard units	Composite	1/Quarter	
CAM 17 Metals	mg/kg	Composite	1/Quarter	
TCDD-Equivalents	pg/g	Composite	1/Quarter	EPA Method 1613

2. **Table E-9 Testing Requirements**. The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table E-9:

   a. **Applicable to all parameters**. Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; or by methods approved by the Central Valley Water Board or the State Water Board.

   b. **Dry-tons.** Units may be reported in volume or weight measurement.

c. **Ash Liming Capacity.** Test method for neutralizing value for liming materials (or percent calcium carbonate equivalency-CCE) shall be UC Davis Method 440 or Association of Official Analytical Chemists (AOAC) 955.01.

d. **CAM 17 Metals.** California Administrative Manual (i.e., CAM) metals include: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc. Monitoring for CAM 17 Metals shall be in accordance with California Code of Regulations Title 22 testing procedures.

e. **Dioxin Equivalents.** Dioxin equivalents, also known as the TEQ, is a calculated value that reflects the combined effect of dioxin and furan compounds (congeners). Results for dioxin TEQ shall include all congeners. Upon Executive Officer approval, sampling frequency may be reduced after two consecutive years of data has been submitted.

3. The Discharger shall record on a monthly basis the following information about wood ash removed from the Facility and submit an annual SMR no later than 1 April of each year:

a. Final end user name, address, and disposal location or soil amendment application area (except as described in item c below for intermediate producers);

b. Volume and/or weight of ash for each location/area (except as described in item c below for intermediate producers); and

c. The name, address, and volume and/or weight of ash sold or supplied to an intermediate producer for use in the manufacture of commercial soil amendment products. (Note: Final application area information for end users purchasing commercial soil amendment products is not required.)

C. Effluent and Receiving Water Characterization

1. Monitoring Frequency

a. **Effluent Sampling.** Samples shall be collected from the effluent (Monitoring Locations SW-003 and SW-004) once during the permit term during the first discharge event for each discharge point utilized during the permit term.

b. **Receiving Water Sampling.** Samples shall be collected from the upstream receiving water (Monitoring Location RSW-001 and RSW-003) once during the permit term during the first discharge event for each discharge point utilized during the permit term.

Constituents shall be collected and analyzed consistent with the Discharger's Analytical Methods Report (MRP, X.D.2) using sufficiently sensitive analytical methods and Reporting Levels (RLs) per the SSM Rule specified in 40 C.F.R.

122.21(e)(3) and 122.44(i)(1)(iv). The "Reporting Level" is synonymous with the "Method Minimum Level" described in the SSM Rule. The results of the monitoring shall be submitted to the Central Valley Water Board with the quarterly self-monitoring reports. Each individual monitoring event shall provide representative sample results for the effluent and upstream receiving water.

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

3. The Discharger shall conduct effluent and receiving water characterization monitoring in accordance with Table E-10 and the testing requirements described in section IX.C.4 below.

Table E-10. Effluent and Receiving Water Characterization Monitoring

VOLATILE ORGANICS

CTR Number	Volatile Organic Parameters	CAS Number	Units	Effluent Sample Type
25	2-Chloroethyl vinyl Ether	110-75-8	µg/L	Grab
17	Acrolein	107-02-8	µg/L	Grab
18	Acrylonitrile	107-13-1	µg/L	Grab
19	Benzene	71-43-2	µg/L	Grab
20	Bromoform	75-25-2	µg/L	Grab
21	Carbon Tetrachloride	56-23-5	µg/L	Grab
22	Chlorobenzene	108-90-7	µg/L	Grab
24	Chloroethane	75-00-3	µg/L	Grab
26	Chloroform	67-66-3	µg/L	Grab
35	Methyl Chloride	74-87-3	µg/L	Grab
23	Dibromochloromethane	124-48-1	µg/L	Grab
27	Dichlorobromomethane	75-27-4	µg/L	Grab
36	Methylene Chloride	75-09-2	µg/L	Grab
33	Ethylbenzene	100-41-4	µg/L	Grab
89	Hexachlorobutadiene	87-68-3	µg/L	Grab
34	Methyl Bromide (Bromomethane)	74-83-9	µg/L	Grab
94	Naphthalene	91-20-3	µg/L	Grab
38	Tetrachloroethylene (PCE)	127-18-4	µg/L	Grab

CTR Number	Volatile Organic Parameters	CAS Number	Units	Effluent Sample Type
39	Toluene	108-88-3	µg/L	Grab
40	trans-1,2-Dichloroethylene	156-60-5	µg/L	Grab
43	Trichloroethylene (TCE)	79-01-6	µg/L	Grab
44	Vinyl Chloride	75-01-4	µg/L	Grab
21	Methyl-tert-butyl ether (MTBE)	1634-04-4	µg/L	Grab
41	1,1,1-Trichloroethane	71-55-6	µg/L	Grab
42	1,1,2-Trichloroethane	79-00-5	µg/L	Grab
28	1,1-Dichloroethane	75-34-3	µg/L	Grab
30	1,1-Dichloroethylene (DCE)	75-35-4	µg/L	Grab
31	1,2-Dichloropropane	78-87-5	µg/L	Grab
32	1,3-Dichloropropylene	542-75-6	µg/L	Grab
37	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	Grab
101	1,2,4-Trichlorobenzene	120-82-1	µg/L	Grab
29	1,2-Dichloroethane	107-06-2	µg/L	Grab
75	1,2-Dichlorobenzene	95-50-1	µg/L	Grab
76	1,3-Dichlorobenzene	541-73-1	µg/L	Grab
77	1,4-Dichlorobenzene	106-46-7	µg/L	Grab

SEMI-VOLATILE ORGANICS

CTR Number	Semi-Organic Volatile Parameters	CAS Number	Units	Effluent Sample Type
60	Benzo(a)Anthracene	56-55-3	µg/L	Grab
85	1,2-Diphenylhydrazine	122-66-7	µg/L	Grab
45	2-Chlorophenol	95-57-8	µg/L	Grab
46	2,4-Dichlorophenol	120-83-2	µg/L	Grab
47	2,4-Dimethylphenol	105-67-9	µg/L	Grab
49	2,4-Dinitrophenol	51-28-5	µg/L	Grab
82	2,4-Dinitrotoluene	121-14-2	µg/L	Grab
55	2,4,6-Trichlorophenol	88-06-2	µg/L	Grab
83	2,6-Dinitrotoluene	606-20-2	µg/L	Grab
50	2-Nitrophenol	88-75-5	µg/L	Grab
71	2-Chloronaphthalene	91-58-7	µg/L	Grab
78	3,3-Dichlorobenzidine	91-94-1	µg/L	Grab
62	Benzo(b)Fluoranthene	205-99-2	µg/L	Grab
52	4-Chloro-3-methylphenol	59-50-7	µg/L	Grab
48	2-Methyl-4,6-Dinitrophenol	534-52-1	µg/L	Grab
51	4-Nitrophenol	100-02-7	µg/L	Grab
69	4-Bromophenyl Phenyl Ether	101-55-3	µg/L	Grab
72	4-Chlorophenyl Phenyl Ether	7005-72-3	µg/L	Grab
56	Acenaphthene	83-32-9	µg/L	Grab
57	Acenaphthylene	208-96-8	µg/L	Grab
58	Anthracene	120-12-7	µg/L	Grab

CTR Number	Semi-Organic Volatile Parameters	CAS Number	Units	Effluent Sample Type
59	Benzidine	92-87-5	µg/L	Grab
61	Benzo(a)Pyrene	50-32-8	µg/L	Grab
63	Benzo(ghi)Perylene	191-24-2	µg/L	Grab
64	Benzo(k)Fluoranthene	207-08-9	µg/L	Grab
65	Bis (2-Chloroethoxy) Methane	111-91-1	µg/L	Grab
66	Bis (2-Chloroethyl) Ether	111-44-4	µg/L	Grab
67	Bis (2-Chloroisopropyl) Ether	108-60-1	µg/L	Grab
68	Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/L	Grab
70	Butylbenzyl Phthalate	85-68-7	µg/L	Grab
73	Chrysene	218-01-9	µg/L	Grab
81	Di-n-butyl Phthalate	84-74-2	µg/L	Grab
84	Di-n-Octyl Phthalate	117-84-0	µg/L	Grab
74	Dibenzo(a,h)anthracene	53-70-3	µg/L	Grab
79	Diethyl Phthalate	84-66-2	µg/L	Grab
80	Dimethyl Phthalate	131-11-3	µg/L	Grab
86	Fluoranthene	206-44-0	µg/L	Grab
87	Fluorene	86-73-7	µg/L	Grab
88	Hexachlorobenzene	118-74-1	µg/L	Grab
90	Hexachlorocyclopentadiene	77-47-4	µg/L	Grab
91	Hexachloroethane	67-72-1	µg/L	Grab
92	Indeno(1,2,3-cd) Pyrene	193-39-5	µg/L	Grab
93	Isophorone	78-59-1	µg/L	Grab
98	N-Nitrosodiphenylamine	86-30-6	µg/L	Grab
96	N-Nitrosodimethylamine	62-75-9	µg/L	Grab
97	N-Nitrosodi-n-Propylamine	621-64-7	µg/L	Grab
95	Nitrobenzene	98-95-3	µg/L	Grab
53	Pentachlorophenol (PCP)	87-86-5	µg/L	Grab
99	Phenanthrene	85-01-8	µg/L	Grab
54	Phenol	108-95-2	µg/L	Grab
100	Pyrene	129-00-0	µg/L	Grab

INORGANICS

CTR Number	Inorganic Parameters	CAS Number	Units	Effluent Sample Type
NL	Aluminum	7429-90-5	µg/L	Grab
1	Antimony, Total	7440-36-0	µg/L	Grab
2	Arsenic, Total	7440-38-2	µg/L	Grab
15	Asbestos	1332-21-4	µg/L	Grab
3	Beryllium, Total	7440-41-7	µg/L	Grab
4	Cadmium, Total	7440-43-9	µg/L	Grab
5a (III)	Chromium (III), Total	16065-83-3	µg/L	Grab
5b (VI)	Chromium (VI), Total	18540-29-9	µg/L	Grab

CTR Number	Inorganic Parameters	CAS Number	Units	Effluent Sample Type
6	Copper, Total	7440-50-8	µg/L	Grab
14	Iron, Total	7439-89-6	µg/L	Grab
7	Lead, Total	7439-92-1	µg/L	Grab
8	Mercury, Total	7439-97-6	µg/L	Grab
NL	Mercury, Methyl	22967-92-6	µg/L	Grab
NL	Manganese, Total	7439-96-5	µg/L	Grab
9	Nickel, Total	7440-02-0	µg/L	Grab
10	Selenium, Total	7782-49-2	µg/L	Grab
11	Silver, Total	7440-22-4	µg/L	Grab
12	Thallium, Total	7440-28-0	µg/L	Grab
13	Zinc, Total	7440-66-6	µg/L	Grab

NON-METALS/MINERALS

CTR Number	Non-Metal/Mineral Parameters	CAS Number	Units	Effluent Sample Type
NL	Boron	7440-42-8	µg/L	Grab
NL	Chloride	16887-00-6	mg/L	Grab
14	Cyanide, Total (as CN)	57-12-5	µg/L	Grab
NL	Phosphorus, Total (as P)	7723-14-0	mg/L	Grab
NL	Sulfate	14808-79-8	mg/L	Grab
NL	Sulfide (as S)	5651-88-7	mg/L	Grab

PESTICIDES/PCBs/DIOXINS

CTR Number	Pesticide/PCB/Dioxin Parameters	CAS Number	Units	Effluent Sample Type
110	4,4-DDD	72-54-8	µg/L	Grab
109	4,4-DDE	72-55-9	µg/L	Grab
108	4,4-DDT	50-29-3	µg/L	Grab
112	alpha-Endosulfan	959-98-8	µg/L	Grab
103	alpha-BHC (Benzene hexachloride)	319-84-6	µg/L	Grab
102	Aldrin	309-00-2	µg/L	Grab
113	beta-Endosulfan	33213-65-9	µg/L	Grab
104	beta-BHC (Benzene hexachloride)	319-85-7	µg/L	Grab
107	Chlordane	57-74-9	µg/L	Grab
106	delta-BHC (Benzene hexachloride)	319-86-8	µg/L	Grab
111	Dieldrin	60-57-1	µg/L	Grab
114	Endosulfan Sulfate	1031-07-8	µg/L	Grab
115	Endrin	72-20-8	µg/L	Grab
116	Endrin Aldehyde	7421-93-4	µg/L	Grab
117	Heptachlor	76-44-8	µg/L	Grab
118	Heptachlor Epoxide	1024-57-3	µg/L	Grab

CTR Number	Pesticide/PCB/Dioxin Parameters	CAS Number	Units	Effluent Sample Type
105	gamma-BHC (Benzene hexachloride or Lindane)	58-89-9	µg/L	Grab
119	Polychlorinated Biphenyl (PCB) 1016	12674-11-2	µg/L	Grab
120	PCB 1221	11104-28-2	µg/L	Grab
121	PCB 1232	11141-16-5	µg/L	Grab
122	PCB 1242	53469-21-9	µg/L	Grab
123	PCB 1248	12672-29-6	µg/L	Grab
124	PCB 1254	11097-69-1	µg/L	Grab
125	PCB 1260	11096-82-5	µg/L	Grab
126	Toxaphene	8001-35-2	µg/L	Grab
16	2,3,7,8-TCDD (Dioxin)	1746-01-6	mg/L	Grab

CONVENTIONAL PARAMETERS

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

NON-CONVENTIONAL PARAMETERS

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

NUTRIENTS

CTR Number	Nutrient Parameters	CAS Number	Units	Effluent Sample Type
7	Ammonia (as N)	7664-41-7	mg/L	Grab
8	Nitrate (as N)	14797-55-8	mg/L	Grab
9	Nitrite (as N)	14797-65-0	mg/L	Grab

4. **Table E-10 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table E-10:

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

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

c. **Redundant Sampling.** The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Table E-2.

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

e. **Sample Type**. All receiving water samples shall be taken as grab samples. Effluent samples shall be taken as described in Table E-10.

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

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

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

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

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

B. Self-Monitoring Reports (SMRs)

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

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR. Monthly SMRs are required even if there is no discharge. If no discharge occurs during the month, the monitoring report must be submitted stating that there has been no discharge.

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

Table E-11. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
1/Day	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
1/Week	Permit effective date	Sunday through Saturday	Submit with monthly SMR
1/Month	Permit effective date	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
1/Quarter	Permit effective date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	1 May 1 August 1 November 1 February of following year
2/Year	Permit effective date	1 January through 30 June 1 July through 31 December	1 August 1 February of following year
1/Year	Permit effective date	1 January through 31 December	1 February of following year
1/Permit term	Permit effective date	Permit effective date through permit expiration date	Submit with monthly SMR

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

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

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

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

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

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

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

5. **Multiple Sample Data**. When determining compliance with an AMEL 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. **The Discharger shall submit SMRs** in accordance with the following requirements:

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

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

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

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

    a. **Annual Average Action Levels**. For constituents with action levels specified as “annual average” (aluminum, chemical oxygen demand, copper, iron, tannins and lignins, total suspended solids, and zinc) the Discharger shall report the reporting year annual average in the June SMR. The reporting year annual average shall be calculated as the average of the sampling results gathered within a reporting year, which is designated in Attachment A as beginning July 1 and ending June 30.

    b. **Dissolved Oxygen Receiving Water Limitations**. The Discharger shall report monthly in the self-monitoring report the dissolved oxygen concentrations in the effluent (SW-003 and SW-004) and the receiving water (RSW-001, RSW-002, RSW-003, and RSW-004).

    c. **Turbidity Receiving Water Limitations**. The Discharger shall calculate and report the turbidity increase in the receiving water applicable to the natural turbidity condition specified in section V.A.17.a-e. of the Waste Discharge Requirements.

d. **Temperature Receiving Water Limitations**. The Discharger shall calculate and report the temperature increase in the receiving water based on the difference in temperature at Monitoring Locations RSW-001 and RSW-002 and the difference in temperature at Monitoring Locations RSW-003 and RSW-004.

e. **Log Yard Sprinkling.** The Discharger shall report the dates on which log yard sprinkling occurred in the monthly SMR.

f. **Groundwater Monitoring Reports.** The reports shall be prepared by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities and shall bear the professional's signature and stamp. Each quarterly report shall contain:

i. Result of the monitoring of the groundwater in tabular format;

ii. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with this Order. The narrative shall be supported by field logs for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of casing volume; and total volume of water purged;

iii. Calculation of groundwater elevations, determination of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends if any;

iv. Summary data tables of historical and current groundwater elevations; and

v. Copies of laboratory analytical report(s) for groundwater monitoring.

g. **Receiving Water to Effluent Discharge Prohibition.** The Discharger shall calculate and report the flow dilution based on the upstream receiving water flow to effluent discharge. For receiving water gauges located downstream of the discharge, measured receiving water flow must be adjusted accordingly so that effluent flow is not included in the receiving water flow rate used for compliance determination of Discharge Prohibition III.D.

C. Other Reports

1. **Analytical Methods Report**. The Discharger shall complete and submit an Analytical Methods Report, electronically via CIWQS submittal, by the due date shown in the Technical Reports Table. The Analytical Methods Report shall include the following for each constituent to be monitored in accordance with this

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

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

    a. The names, certificate grades, and general responsibilities of all persons with duties at the Facility related to compliance with this Order.

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

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

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

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

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

    a. Report of Waste Discharge (Form 200);

b. NPDES Form 1;

c. NPDES Form 2F; and

d. **Storm Water Pollution Prevention Plan (SWPPP) and Salinity Evaluation and Minimization Plan.** The Discharger shall evaluate the effectiveness of the salinity evaluation and minimization plan and provide a summary with the Report of Waste Discharge.

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

Table E-12 Technical Reports

Report #	Technical Report	Due Date	CIWQS Report Name
Intentionally left blank	Standard Reporting Requirements	Intentionally left blank	Intentionally left blank
1	Report of Waste Discharge	31 July 2026	ROWD
2	Analytical Methods Report	9 August 2022	MRP X.C.1
3	Analytical Methods Report Certification	3 months prior to start of Characterization Monitoring	MRP IX.C.2.
4	Annual Operations Report	1 February 2023	MRP X.C.2
5	Annual Operations Report	1 February 2024	MRP X.C.2
6	Annual Operations Report	1 February 2025	MRP X.C.2
7	Annual Operations Report	1 February 2026	MRP X.C.2
8	Annual Operations Report	1 February 2027	MRP X.C.2
Intentionally left blank	Other Reports	Intentionally left blank	Intentionally left blank
9	Best Management Practice Improvement Evaluation	Within 60 days following storm water action level exceedance or receiving water violation	WDR VI.C.2.a
10	Facility Water Balance Evaluation Study and Work Plan	10 December 2022	WDR VI.C.2.b
11	First Flush Standard Operating Procedures	1 October 2022	WDR VI.C.2.c

Report #	Technical Report	Due Date	CIWQS Report Name
12	Antidegradation Re-evaluation	31 July 2026 with the ROWD	WDR VI.C.2.d
13	Salinity Evaluation and Minimization Plan	1 March of the year following an exceedance of its calendar year average salinity action level	WDR VI.C.3.a
14	Storm Water Pollution Prevention Plan Update	1 October 2022	WDR VI.C.3.b
15	Annual Ash Monitoring Report	1 February 2023	WDR VI.C.6.a.ii
16	Annual Ash Monitoring Report	1 February 2024	WDR VI.C.6.a.ii
17	Annual Ash Monitoring Report	1 February 2025	WDR VI.C.6.a.ii
18	Annual Ash Monitoring Report	1 February 2026	WDR VI.C.6.a.ii
19	Annual Ash Monitoring Report	1 February 2027	WDR VI.C.6.a.ii

F.

ATTACHMENT F – FACT SHEET

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Tables

ATTACHMENT F – FACT SHEET

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

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

Waste Discharge ID:	5A452015002
CIWQS Facility Place ID:	256966
Discharger:	Sierra Pacific Industries
Name of Facility:	Shasta Lake Division
Facility Address:	3735 El Cajon Avenue
Facility City, State Zip:	Shasta Lake, CA 96019
Facility County:	Shasta County
Facility Contact, Title and Phone Number:	John Phillips, Division Manager, (530) 275-881
Authorized Person to Sign and Submit Reports:	John Phillips, Division Manager, (530) 275-881
Mailing Address:	Same as Facility Address
Billing Address:	Same as Facility Address
Type of Facility:	Standard Industrial Classification (SIC) Code 2421 – Sawmill and Planing Mill
Major or Minor Facility:	Minor
Threat to Water Quality:	2
Complexity:	A
Pretreatment Program:	Not Applicable
Recycling Requirements:	Not Applicable
Facility Permitted Flow:	Effluent flow limited to 10:1 (receiving water: effluent) conditions
Facility Design Flow:	Not Applicable
Watershed:	Sacramento-Lower Cow-Lower Clear
Receiving Water:	Unnamed tributary to Churn Creek
Receiving Water Type:	Inland surface water

A. Sierra Pacific Industries (hereinafter Discharger) is the owner and operator of Shasta Lake Division (hereinafter Facility), a sawmill facility.

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

B. The Facility discharges wastewater to an unnamed tributary to Churn Creek, a water of the United States, tributary to the Sacramento River vis Churn Creek within the Sacramento-Lower Cow-Lower Clear watershed. The Discharger was previously regulated by Order R5-2016-0025 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0081400 adopted on 21 April 2016 and expired on 31 May 2021. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. The Discharger filed a report of waste discharge (ROWD) and submitted a completed application for reissuance of its waste discharge requirements (WDR's) and NPDES permit on 22 December 2020. A site visit was conducted on 10 February 2022 to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.

D. Regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. Under 40 C.F.R. section 122.6(d), States authorized to administer the NPDES program may administratively continue State-issued permits beyond their expiration dates until the effective date of the new permits, if State law allows it. Pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

II. FACILITY DESCRIPTION

The Facility is a sawmill with a wood-burning boiler that generates steam for kiln heating located in Shasta Lake, CA. The Facility consists of a 12.8-acre paved log deck, a sawmill, a sorter/stacker, a boiler, a planer, drying kilns, a shipping area, various storage sheds, a bone yard, a maintenance shop, and an office. The Facility produces approximately 100 million board feet of lumber per year. The overall property occupies approximately 122 acres, with approximately 40 acres of the industrial active area stormwater discharge regulated under the General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit) Order 2014-0057-DWQ (NPDES No. CAS000001). The remaining portion of the property consists of a closed wood-waste landfill (approximately 17.5 acres), storage ponds, land application area (approximately 3.5 acres), and other undeveloped vegetated open areas.

A. Description of Wastewater and Biosolids Treatment and Controls

1. **Sawmill.** The Facility receives logs that have been harvested from various timberlands in the northwest United States and trucked to the Facility. Logs are stored at the Facility on the paved log deck until the lumber manufacturing process begins in the sawmill. While logs are stored on the paved log deck, they are kept wet, as described below in section II.A.1.a and II.A.4. After logs have been sawn into boards in the sawmill, the product is either shipped green to customers, air dried onsite, or dried in the kilns. Lumber dried in the kilns is transported to the planer where the lumber is surfaced, graded, sorted, banded, and wrapped. Upon completion of the lumber process, product is transferred to and stored in the shipping area prior to truck or rail transport to customers.

   The Discharger utilizes two retention ponds, one recycle pond, and a land application area for storm water management as detailed further in sections II.A.2-7 below and as summarized as follows:

   a. **Dry Weather Conditions.**

      i. Water in the Log Yard Recycle Pond is recycled for log deck sprinkling and dust suppression.

      ii. If needed the Log Yard Recycle Pond can be supplemented with reclaimed treated domestic wastewater from the City of Shasta Lake Wastewater Treatment Facility.

   b. **Wet Weather Conditions**

      i. “First flush” (described in section II.A.4 below) storm water is collected in the Log Yard Recycle Pond.

      ii. Storm water (excluding the first flush) is routed to Retention Pond 1.

      iii. Storm water from Retention Pond 1 is applied via sprinklers to the Land Application Area.

      iv. Excess storm water from the Land Application Area is collected and sent to Retention Pond 2.

      v. If needed, storm water from Retention Pond 2 is discharged via Discharge Point 004 to the unnamed tributary to Churn Creek.

   c. **Urgent Storm Conditions**

      In addition to the Wet Weather Conditions above, the following storm water connections might be made to address urgent conditions at the site when discharge at Discharge Point 004 is insufficient to address storm water quantities:

      i. Storm water from Retention Pond 1 is routed directly to Retention Pond 2 for either storage or disposal at Discharge Point 004.

      ii. Storm water from Retention Pond 1 is discharged via Discharge Point 003 to the unnamed tributary to Churn Creek.

2. **Drainage Area 1, 2, and 3.** Drainage Areas 1, 2, and 3 are on the eastern side of the facility, including the areas for lumber storage, dry kilns, and the shipping area. Storm water from this area enters the storm water collection system,

consisting of a series of drop inlets, gravel lined ditches, and culverts, and is discharge from the site at two surface water discharge points SW-1 and SW-2 to an ephemeral unnamed tributary to Churn Creek. Storm water discharge from this portion of the Facility is regulated separately from this Order under the General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit) Order 2014-0057-DWQ (NPDES No. CAS000001).

3. **Ash Management.** Wood waste from the sawmill is utilized for boiler fuel in the lumber drying kilns. Wood ash from the boiler is stored onsite in a covered ash bunker where it is allowed to cool for few days. The ash is licensed by the Organic Materials Review Institute as product sin-1424 for sale as an organic crop fertilizer and soil amendment. Cooled ash is loaded into trucks, weighed, and transported offsite to agricultural fields owned by SPI for use as an agricultural soil amendment. Approximately 380 tons of ash was generated in 2021. A commercial Fertilizing Materials License has been obtained from the State of California Department of Food and Agriculture. The location(s) of the on-site storage are shown in Attachment C.

4. **Log Yard Recycle Pond (PND-002).** The log yard recycle pond has a total capacity of 16.1 acre-feet. Water collected in the Recycle Pond is used for log deck sprinkling as well as dust suppression on the log deck. Typically, during the summer months, the stored water in the Recycle Pond is insufficient to meet log deck sprinkling needs. Supplemental reclaimed treated wastewater from the City of Shasta Lake Wastewater Treatment Plant is added to the recycle pond operations to meet the summer sprinkling needs. Excess log deck sprinkling water runs off from the paved log deck and is routed back to the Recycle Pond for reuse, creating a closed loop system for the log sprinkling water. Storm water from the western portion of the Facility is initially collected in the Recycle Pond for the “first flush”. This first flush is considered as the first 2-inches of precipitation after stopping log deck sprinkling. Process water and first flush storm water collected in the log yard recycle pond does not discharge to surface water.

5. **Retention Pond 1 (PND-001).** Retention Pond 1 has a total pond capacity of 47.6 acre-feet and includes an aeration curtain and disc aerator. Storm water (excluding the first flush) from the log deck is routed to Retention Pond 1. Retention Pond 1 includes Discharge Point 003 for industrial storm water discharge in urgent storm conditions where complete discharge to Discharge Point 004 is infeasible. Direct connection between Retention Pond 1 and Retention Pond 2 exists for use in urgent storm conditions as well. In normal conditions, Discharge Point 003 or direct pumping to Retention Pond 2 from Retention Pond 1 is not used. Instead, storm water collected in Retention Pond 1 is sent to the Land Application Area for eventual discharge to Discharge Point 004 via Retention Pond 2.

6. **Land Application Area.** The Land Application Area consists of approximately 3.5 acres of undeveloped vegetated area. Storm water from Retention Pond 1 or

Retention Pond 2 can be applied to the Land Application Area via above ground sprinklers. Water applied to the Land Application Area is allowed to infiltrate and/or evaporate. Excess water from the Land Application Area is captured via ditches along the periphery of the Land Application Area and directed to Retention Pond 2 via open culvert piping.

7. **Retention Pond 2 (PND-003).** Retention Pond 2 has a total pond capacity of 46.8 acre-feet and includes an aeration tubing and disc aerator. Under regular operations, excess storm water applied to the Land Application Area is captured and sent to Retention Pond 2 for discharge at Discharge Point 004 as the Facility's primary mode of discharge. Storm water in Retention Pond 2 can also be applied at the Land Application Area. Under urgent storm conditions, a direct connection from Retention Pond 1 might be utilized, bypassing Land Application Area treatment of storm water.

8. **Closed Woodwaste Landfill.** Storm water runoff from the Sierra Pacific Industries, Inc. closed Class III landfill located west of the sawmill facility enters the western unnamed Churn Creek tributary below the previous Discharge Point 001 and downstream of receiving water monitoring location RSW-002. The landfill is regulated by the Central Valley Water Board pursuant to Order R5-2003-0081.

B. Discharge Points and Receiving Waters

1. The Facility is located in section 36, T33N, R5W, MDB&M, as shown in Attachment B, a part of this Order.

2. Industrial storm water from Retention Pond 1 (PND-001) can be discharged at Discharge Point No. 003 to the unnamed tributary to Churn Creek, a water of the United States and tributary to the Sacramento River via Churn Creek at point latitude 40 degrees 40 minutes 30 seconds N and longitude 122 degrees 23 minutes 05 seconds W.

3. Industrial storm water from Retention Pond 2 (PND-003) can discharged at Discharge Point No. 004 to the unnamed tributary to Churn Creek, a water of the United States and a tributary to the Sacramento River via Churn creek at point latitude 40 degrees 40 minutes 29 seconds N and longitude 122 degrees 23 minutes 23 seconds W.

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

During the permit term of Order R5-2016-0025, only one monitoring event occurred in February 2017 at Monitoring Location SW-003 (previously named "EFF-002" in R5-2016-0025). Effluent limitations contained in Order R5-2016-0025 for discharges from Discharge Point 003 (Monitoring Location SW-003) and representative monitoring data from the single monitoring day from the term of Order R5-2016-0025 are as follows:

Table F-2. Historic Effluent Limitations

Parameter	Units	Historic Effluent Limitations	Highest Average Monthly Discharge	Highest Daily Discharge
pH	standard units	Instantaneous Min 6.0 Instantaneous Max 9.0	5.31	5.31
Total Suspended Solids	mg/L	MDEL 100	49	49
Copper, Total Recoverable	µg/L	AMEL 2.5 MDEL 5.1	8	8
Zinc, Total Recoverable	µg/L	AMEL 7.0 MDEL 14	34.6	34.6
Settleable Solids	mL/L	AMEL 0.1 MDEL 0.2	<0.1	<0.1

D. Compliance Summary

The Central Valley Water Board issued an Administrative Civil Liability (ACL) Complaint on 24 July 2018 which proposed to assess a civil liability of $30,000 against the Discharger for effluent limitation violations that occurred at Discharge Point 003 (previously named “Discharge Point 002” in R5-2016-0025) between 19 January 2016 and 28 February 2017. The Discharger paid the mandatory minimum penalty of $30,000.

E. Planned Changes

The Discharger constructed Retention Pond 2 for additional storm water storage. Discharge from Retention Pond 2 is planned at Discharge Point 004 to the unnamed tributary to churn creek. Infrastructure for this discharge point does not yet exist, but likely a valve and pipe near the overflow spillway at the southeast end of Retention Pond 2 would be added. Once constructed, Discharge Point 004 would be the primary discharge location for the Facility under normal operations.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order serves as 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 point source discharges from this Facility to surface waters.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

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

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

   a. Basin Plan. The Central Valley Water Board adopted a Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fifth Edition, May 2018 (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan.

   The Basin Plan at section 2.1 states that the beneficial uses of any specifically identified water body generally apply to its tributary streams. The Basin Plan in Table 2-1, section 2, does not specifically identify beneficial uses for the unnamed tributary to Churn Creek, but does identify present and potential uses for the Sacramento River from Shasta Dam to the Colusa Basin Drain, to which the unnamed tributary to Churn Creek, is tributary. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Thus, beneficial uses applicable to the unnamed tributary to churn creek are as follows:

Table F-3 Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
003, 004	Unnamed tributary to Churn Creek	Existing: Municipal and domestic water supply (MUN); agricultural supply, including irrigation and stock watering (AGR); industrial service supply (IND); hydropower generation (POW); contact (REC-1) and non-contact (REC-2) water recreation; warm freshwater habitat (WARM); cold freshwater habitat (COLD); warm and cold migration of aquatic organisms (MIGR); warm and cold spawning, reproduction, and/or early development (SPWN); wildlife habitat (WILD); navigation (NAV)

Discharge Point	Receiving Water Name	Beneficial Use(s)
	Groundwater	Municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PRO)

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

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

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

5. **Anti-Backsliding Requirements**. Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in

NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

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

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

8. **Storm Water Requirements**. U.S. EPA promulgated federal regulations for storm water on 16 November 1990 in 40 C.F.R. parts 122, 123, and 124. The NPDES Industrial Storm Water Program regulates storm water discharges from sawmills and planing mills. Sawmills and planing mills are applicable industries under the storm water program and are obligated to comply with the federal regulations.

   The discharge of industrial storm water from the log yard could be regulated under the General Industrial Storm Water Permit. However, due to the complexity of Facility operations and unique threats to water quality, the Central Valley Water Board has elected to regulate these discharges with an individual NPDES permit. Therefore, discharges of industrial storm water from the 26.6-acre western portion of the Facility are not covered under the General Industrial Storm Water Permit and are covered under this Order.

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

1. Under section 303(d) of the 1972 CWA, states, territories and authorized tribes are required to develop lists of water quality limited segments. The waters on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. On 6 April 2018 U.S. EPA gave final approval to California's 2014 – 2016 section 303(d) List of Water Quality Limited Segments. The Basin Plan references this list of Water Quality Limited Segments (WQLSs), which are defined as "…those sections of lakes, streams, rivers or other fresh water bodies where water quality does not meet (or is not expected to meet) water quality standards even after the application of appropriate limitations for point sources

(40 C.F.R. part 130, et seq.).” The Basin Plan also states, “Additional treatment beyond minimum federal standards will be imposed on dischargers to [WQLSs]. Dischargers will be assigned or allocated a maximum allowable load of critical pollutants so that water quality objectives can be met in the segment.” The listing for the Sacramento River from Keswick Dam to Cottonwood Creek includes unknown toxicity.

2. Total Maximum Daily Loads (TMDL’s). Table F-4, below, identifies the 303(d) listings and any applicable TMDLs. At the time of this permit renewal, there are no approved TMDL’s with waste load allocations that apply to this Facility.

Table F-4. 303 (d) List for Sacramento River from Keswick Dam to Cottonwood Creek

Pollutant	Potential Sources	TMDL Status
Unknown toxicity	Unknown	Expected completion 2019

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

E. Other Plans, Polices and Regulations

1. **Title 27**. The discharge authorized herein and the treatment and storage facilities associated with the discharge of treated municipal wastewater, except for discharges of residual sludge and solid waste, are exempt from the requirements of Title 27, California Code of Regulations (CCR), section 20005 et seq (hereafter Title 27). The exemption, pursuant to Title 27 CCR section 20090(a), is based on the following:

   20090(b) Wastewater – Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leachfields if the following conditions are met:

   (1) The waste consists primarily of domestic sewage and treated effluent;

   (2) The waste discharge requirements are consistent with water quality objectives; and

   (3) The treatment and storage facilities described herein are associated with a municipal wastewater treatment plant.

   The Facility ponds are unlined, and wastewater or storm water contained in the ponds percolates to underlying groundwater; however, groundwater monitoring data indicates that the discharge is in compliance with the Basin Plan, and thus, meets precondition (2). This Order requires the Discharger to continue collecting groundwater monitoring data, and the wastewater discharge is not a hazardous waste.

2. **Wood Ash.** Pursuant to state and federal regulations, wood ash, classified as non-hazardous solid waste, may be beneficially reused as an agricultural soil

amendment, or other appropriate use. This Order does not authorized storage, transportation, or disposal of ash or other wastes characterized as hazardous wastes. Appropriate separate regulatory coverage must be secured for such activities.

IV. 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., section 1311(b)(1)(C); 40 C.F.R. section 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 at page 4-27, contains an implementation policy, "Policy for Application of Water Quality Objectives", that specifies 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. section 122.44(d)(1)(vi)(A), (B) or (C)), or (3) an indicator parameter.

The Basin Plan includes 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." (Basin Plan at section 3.1.20) The Basin Plan states 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 Plan further states that, to protect all beneficial uses, the Central Valley Water Board may apply limits more stringent than MCLs. 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 III.A (No discharge or application of waste other than that described in this Order).** This prohibition is based on Water Code section 13260 that requires filing of a ROWD before discharges can occur. The Discharger submitted a ROWD for the discharges described in this Order; therefore, discharges not described in this Order are prohibited.

2. **Prohibition III.B (No bypasses or overflow of untreated wastewater, except under the conditions at CFR section122.41(m)(4)).** As stated in section I.G of Attachment D, Standard Provisions, this Order prohibits bypass from any portion of the treatment facility. Federal regulations, 40 C.F.R. section 122.41(m), define "bypass" as the intentional diversion of waste streams from any portion of a treatment facility. This section of the federal regulations, 40 C.F.R. section 122.41(m)(4), prohibits bypass unless it is unavoidable to prevent loss of life, personal injury, or severe property damage. In considering the Regional Water Board's prohibition of bypasses, the State Water Board adopted a precedential decision, Order No. WQO 2002-0015, which cites the federal regulations, 40 C.F.R. section 122.41(m), as allowing bypass only for essential maintenance to assure efficient operation.

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

4. **Prohibition III.D (No discharge without a minimum of 10:1 flow dilution)**. Consistent with Order R5-2016-0025, this Order prohibits discharge except when

a minimum of 10:1(receiving water to effluent) flow dilution is achieved between the upstream receiving water and the effluent as a minimum mitigation measure to prevent the unnamed tributary to Churn Creek from becoming effluent dominated. This dilution requirement is consistent with prior requirements for the Facility, requirements for other regulated facilities in similar situations, and ensures that a minimum level of dilution is achieved at some point downstream of the discharge location. This minimum dilution requirement is not a dilution credit.

5. **Prohibition III.E (No discharge of hazardous waste)**. This prohibition is based on California Code of Regulations, title 22, section 66261.1 et seq, that prohibits discharge of hazardous waste.

6. **Prohibition III.F (No discharge of recycle water from log yard sprinkling, commingled recycle water and storm water (i.e., "first flush"), or other waste of recognizable sawmill origin)**. Consistent with Order R5-2016-0025, this Order prohibits discharges of recycled water from log sprinkling and discharge of leg deck recycle pond water to surface waters or surface water drainage courses. This prohibition is consistent with the discharge characterization provided in the Report of Waste Discharge.

7. **Prohibition III.G (No direct discharge of reclaimed water)**. Consistent with Order R5-2016-0025, this Order prohibits the direct discharge of reclaimed water to surface waters or surface water drainage courses. This prohibition is consistent with the discharge characterization provided in the Report of Waste Discharge.

8. **Prohibition III.H (No discharge of water designated for the sanitary sewer)**. Consistent with Order R5-2016-0025, this order prohibits the discharge of boiler blowdown and other process water, designated for discharge to the sanitary sewer, to surface water drainage courses. This prohibition is consistent with the discharge characterization provided in the Report of Waste Discharge.

9. **Prohibition III.I (No discharge of storm water leachate from wood fuel stockpiles to surface waters or surface water drainage courses)**. Consistent with Order R5-2016-0025, this Order prohibits discharges of storm water leachate from wood fuel stockpiles to surface water or surface water drainage courses. This Order requires the Discharger to implement BMP's to prevent these discharges. This prohibition is consistent with the discharge characterization provided in the Report of Waste Discharge.

10. **Prohibition III.J (No discharge of ash, bark, sawdust, or wood)**. Consistent with Order R5-2016-0025, this Order prohibits the discharge of ash, bark, sawdust, or wood to surface waters or surface water drainage courses. This prohibition is consistent with the discharge characterization provided in the Report of Waste Discharge.

11. **Prohibition III.K (No discharge of debris recognized as originating from the Facility)**. Effluent limitation guidelines (ELG's) were established at 40 C.F.R. part

429, subpart I for the Wet Storage Subcategory of the Timber Products Point Source Category, which applies to discharges from the storage of logs or roundwood on land during which water is sprayed or deposited intentionally on the logs (wet decking). The Discharger stacks logs on a paved log yard and keeps them wet by a sprinkler system to prevent checking and blue staining, and thus the requirements of 40 C.F.R. part 429, subpart I are applicable to the Facility. 40 C.F.R. sections 429.101 and 429.103 require that existing point sources subject to subpart I achieve effluent limitations representing the degree of effluent reduction attainable by the application of best practicable control technology currently available (BPT) and best available technology economically achievable (BAT), respectively. For wet storage operations, 40 C.F.R. sections 429.101 and 429.103 both require that there shall be no debris discharged. Debris is defined as woody material such as bark, twigs, branches, heartwood, or sapwood that will not pass through a 2.54 cm (1.0 in) diameter round opening and is present in the discharge from a wet storage facility. Consistent with 40 C.F.R. sections 429.101 and 429.103, this Order prohibits discharges of debris recognized as originated from the Facility to surface waters or surface water drainage courses. This prohibition is consistent with the discharge characterization provided in the Report of Waste Discharge.

12. **Prohibition III.L (No discharge of wastewater from barking, sawmill, and planing operations)**. ELG's were established at 40 C.F.R. part 429, subpart A for the Barking Subcategory of the Timber Products Point Source Category, which applies to discharges from the barking of logs, and at subpart K for the Sawmills and Planing Mills Subcategory, which applies to discharges from timber products processing procedures that include bark removal, sawing, resawing, edging, trimming, planing, and machining. The Discharger operates barking, sawmill, and planing mill operations, and thus the requirements of 40 C.F.R. part 429, subparts A and K are applicable to the Facility. 40 C.F.R. section 429.21(a) require that existing point sources subject to subpart A achieve effluent limitations representing the degree of effluent reduction attainable by the application of BPT. For mechanical barking operations, 40 C.F.R. section 429.21(a) requires that there shall be no discharge of process wastewater pollutants into navigable waters. 40 C.F.R. sections 429.121 and 429.123 require that existing point sources subject to subpart K achieve effluent limitations representing the degree of effluent reduction attainable by the application of BPT and BAT, respectively. For sawmill and planing mill operations, 40 C.F.R. sections 429.121 and 429.123 requires that there shall be no discharge of process wastewater pollutants into navigable waters. Consistent with 40 C.F.R. sections 429.21(a), 429.121, and 429.123, this Order prohibits discharges of process wastewater from barking, sawmill, and planing operations. This prohibition is consistent with the discharge characterization provided in the Report of Waste Discharge.

13. **Prohibition III.M (No discharge of "hazardous" or "designated" waste)**. Consistent with Order R5-2016-0025, this Order prohibits discharge of waste classified as "hazardous" as defined in section 2521(a) of Title 23, California

Code of Regulations (CCR), section 2510, et seq., or “designated”, as defined in section 13173 of the Water Code.

B. Technology-Based Effluent Limitations

1. Scope and Authority

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

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

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

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

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

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

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 C.F.R. section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent

limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Central Valley Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

2. Applicable Technology-Based Effluent Limitations

The Discharger operates a "wet deck" log storage operation, a "barking" operation, and a "sawmills and planing mills" operation. Therefore, ELGs established in the Timber Products Processing Point Source Category (40 C.F.R. part 429), specifically, subpart A (Barking Subcategory), subpart I (Wet Storage Subcategory), and subpart K (Sawmills and Planing Mills Subcategory) are applicable.

Except as provided in 40 C.F.R. section 125.30 through 125.32, any existing point source subject to these subparts must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of BPT. The following effluent limitations apply to Discharge Points 003 and 004:

a. **Barking Operations.** As discussed in section IV.A.12 of this Fact Sheet, ELG's established at 40 C.F.R. part 429, subpart A for the Barking Subcategory of the Timber Products Point Source Category are applicable to the Facility. Consistent with 40 C.F.R. section 429.21(a), this Order establishes a prohibition of discharges of process wastewater from barking operations.

b. **Wet Storage Operations.** As discussed in section IV.A.11 of this Fact Sheet, ELG's established at 40 C.F.R. part 429, subpart I for the Wet Storage Subcategory of the Timber Products Point Source Category are applicable to the Facility. Consistent with 40 C.F.R. sections 429.101 and 429.103 and Order R5-2016-0025, this Order prohibits discharges of debris recognized as originated from the Facility to surface waters or surface water drainage courses.

   40 C.F.R. sections 429.101 and 103 also require that the pH be within the range of 6.0 to 9.0. Consistent with 40 C.F.R. sections 429.101 and 429.103 and Order R5-2016-0025, this Order includes instantaneous minimum and maximum effluent limitations for pH of 6.0 and 9.0.

c. **Sawmill and Planing Operations.** As discussed in section IV.A.12 of this Fact Sheet, ELG's established at 40 C.F.R. part 429, subpart K for the Sawmills and Planing Mills Subcategory of the Timber Products Point Source Category are applicable to the Facility. Consistent with 40 C.F.R. sections 429.121, and 429.123, this Order establishes a prohibition of discharges of process wastewater from sawmill and planing mill operations.

Summary of Technology-based Effluent Limitations
Discharge Points 003 and 004

Table F-5. Summary of Technology-based Effluent Limitations

Parameter	Units	Effluent Limitations
pH	standard units	Instantaneous Min 6.0 Instantaneous Max 9.0

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 Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

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

As specified in 40 C.F.R. section 122.44(k), BMPs may be used in lieu of numeric effluent limitations when:

a. Authorized under section 304(e) of the CWA for control of toxic pollutants and hazardous substances for ancillary industrial activities;

b. Authorized under section 402(p) of the CWA for the control of storm water discharges;

c. Numeric effluent limitations are infeasible; or

d. The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purpose and intent of the CWA.

Section 402(p) of the CWA authorizes regulation of storm water discharges associated with industrial activities. Therefore, a combination of BMPs, storm water action levels, and receiving water limitations are utilized in this Order to regulate the discharge of pollutants in discharges of industrial storm water.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

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

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

The federal CWA section 101(a)(2), states: “it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife, and for recreation in and on the water be achieved by July 1, 1983.” Federal Regulations, developed to implement the requirements of the CWA, create a rebuttable presumption that all waters be designated as fishable and swimmable. Federal Regulations, 40 CFR sections 131.2 and 131.10, require that all waters of the State regulated to protect the beneficial uses of public water supply, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial and other purposes including navigation. 40 C.F.R. section 131.3(e) defines existing beneficial uses as those uses actually attained after 28 November 1975, whether or not they are included in the water quality standards. Federal Regulation, 40 C.F.R. section 131.10 requires that uses be obtained by implementing effluent limitations, requires that all downstream uses be protected and states that in no case shall a state adopt waste transport or waste assimilation as a beneficial use for any waters of the United States.

a. **Receiving Water and Beneficial Uses.** Refer to III.C.1. above for a complete description of the receiving water and beneficial uses.

b. **Effluent and Ambient Background Data.** The reasonable potential analysis (RPA), as described in section IV.C.3 of this Fact Sheet, was based on data from 1 January 2017 through 31 October 2021, which includes effluent and ambient background data submitted in SMRs, and the Report of Waste Discharge (ROWD). Effluent and receiving water data submitting within the SMRs was only collected during the February 2017 storm event, mostly resulting in only one data point for each effluent and upstream receiving water. Included in the ROWD were data the Discharger collected from March 2019 and April 2019 from the newly constructed Retention Pond 2 (PND-003).

c. **Conversion Factors.** The CTR contains aquatic life criteria for arsenic, cadmium, chromium III, chromium VI, copper, lead, nickel, silver, and zinc which are presented in dissolved concentrations. 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 criteria.

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

Based on one effluent sample and two receiving water samples collected between 1 January 2017 through 31 October 2021, the effluent hardness was 21 mg/L, the upstream receiving water hardness ranged from 37 mg/L to 47 mg/L, and the downstream receiving water hardness ranged from 35 mg/L to 45 mg/L. Due to the short duration, periodic nature of storm events and corresponding intermittent storm water discharges from the Facility, the CTR acute criteria calculated using an average receiving water hardness of 41 mg/L were used for evaluating compliance with water quality objectives for the storm water discharge.

3. Determining the Need for WQBEL's

This Order regulates the discharge of storm water from industrial activity to surface water. The discharge is storm water; therefore, the SIP provisions for establishment of effluent limitations for CTR constituents are not applicable to the discharge. However, due to the complexity of the Facility and unique threats to water quality, the Central Valley Water Board has elected to regulate this Facility with an individual NPDES permit. In accordance with 40 C.F.R. section 122.44(d)(1)(i), the Central Valley Water Board has conducted a review of effluent (storm water) and upstream and downstream receiving water data collected during the term of Order R5-2016-0025 for comparison with applicable water quality objectives and/or criteria to determine if the discharge is causing exceedances of the applicable water quality objectives in the

downstream receiving water. In addition, storm water discharge data has been compared to applicable storm water numeric action level values to assess whether the storm water discharge could potentially impair or contribute to impairing water quality or affect human health from ingestion of water or fish.

In accordance with 40 C.F.R. section 122.44(k), in lieu of WQBELs, this Order includes storm water action levels for pollutants in the discharge that exceed applicable storm water numeric action level values or are causing exceedances of applicable water quality objectives in the downstream receiving water. The storm water action levels are not effluent limits and should not be interpreted as such; they are merely levels that the Central Valley Water Board has used to determine if storm water discharges from the Facility merit further monitoring to ensure that the Facility has been successful in implementing BMPs identified in the Storm Water Pollution Prevention Plan (SWPPP).

Downstream receiving water monitoring data, applicable water quality criteria and objectives, and storm water action levels have been provided in Attachment G.

Most constituents are not discussed in this Order, as the storm water discharge is well below the pollutant numeric action level values and/or the water quality objectives/criteria for these constituents. However, the following constituents are notable for discussion upon assessment of the data.

a. **Aluminum.** DDW has established Secondary MCL's to assist public drinking water systems in managing their drinking water for public welfare considerations, 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 MCL's on an annual average basis. DDW has also established Primary MCL's to address health-related effects of drinking water. The Primary MCL for aluminum is 1,000 ug/L for the protection of the MUN beneficial use, expressed as a total recoverable fraction.

   The 2018 U.S. EPA NAWQC for protection of freshwater aquatic life for aluminum recommends acute (1-hour average; criteria maximum concentration or CMC) and chronic (4-day average; criteria continuous concentration or CCC) standards based upon Multiple Linear Regression (MLR) models for vertebrate and invertebrate species that use pH, dissolved organic carbon (DOC), and total hardness to quantify the effects of these water chemistry parameters on the bioavailability and resultant toxicity of aluminum to aquatic organisms. The 2018 Aluminum NAWQC document provides look up tables or a Microsoft Excel spreadsheet to calculate the criteria based on pH, DOC, and total hardness. The U.S. EPA aluminum criteria have been used to implement the Basin Plan's narrative toxicity objective.

A site-specific CMC of 1,200 µg/L and CCC of 460 µg/L were calculated considering pH, hardness, and DOC representative of the receiving water conditions.

Total recoverable aluminum concentration in the effluent was 4,530 µg/L, based on one sample collected during the February 2017 storm event. During the same storm event, two upstream receiving water results were collected, ranging from 1,110 and 4,050 µg/L. No downstream receiving water results were collected for aluminum during the permit term. Based on the available data, total recoverable aluminum concentrations in the effluent did exceed the Secondary MCL. However, these results were all total recoverable fractions. However, in assessing compliance with secondary MCLs, filtered samples (1.5 microns) is allowable. Monitoring with a 1.5 micron filter is included in this Order to better assess aluminum. However, the discharge has also exceeded the NAWQC criteria and the Primary MCL. It is expected that future monitoring of aluminum might be lower than the 2017 result given the newly-implemented BMPs. Therefore, this Order includes a storm water action level for aluminum of 750 µg/L based on the numeric action level (NAL) values in Table 2 of the General Permit for Storm Water Associated with Industrial Activities Order 2014-0057-DWQ, NPDES Order No. CAS000001 (Industrial General Permit or IGP). If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMP's in order to reduce aluminum in the storm water discharge

b. **Chemical Oxygen Demand (COD).** COD is the amount of dissolved oxygen in water consumed by the chemical breakdown of organic and inorganic matter (i.e., COD is not a specific component in a discharge). A high COD value indicates elevated quantities of pollutants in runoff, especially carbon. The storm water benchmark value in U.S. EPA's Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) for General Sawmills and Planing Mills (SIC code 2421) for COD is 120 mg/L.

Effluent COD for the permit term includes one result of 130 mg/L in February 2017. Upstream receiving water monitoring for the same discharge event was non-detect, and no downstream receiving water monitoring results were taken for COD. Additional data post-upgrades included in the ROWD include seven results between March and April 2019 at PND-003 ranged from non-detect to 13 mg/L. It is expected that future monitoring of COD might be lower than the 2017 result given the newly-implemented BMPs. Based on the levels of COD in the effluent and PND-003 and the nature of runoff from sawmill operations, a storm water action level of 120 mg/L for COD has been established in this Order based on the benchmark in U.S. EPA's Multi-Sector General Permit for Stormwater Discharges Associated With Industrial Activity (MSGP). If exceeded, the Discharger is required to evaluate and update, if necessary,

the Facility's BMP's in order to reduce the COD in the storm water discharge.

c. **Copper.** The CTR includes hardness-dependent criteria for the protection of freshwater aquatic life for copper. These criteria for copper are presented in dissolved concentrations, as 1-hour acute criteria and 4-day chronic criteria. U.S. EPA recommends conversion factors to translate dissolved concentrations to total concentrations. Default U.S. EPA translators were used for the effluent and receiving water. The Basin Plan also includes hardness-dependent criteria for copper for the Sacramento River and its tributaries above the State Highway 32 bridge at Hamilton City, expressed in dissolved concentrations.

As described in section IV.C.2.e of this Fact Sheet, the applicable criteria for evaluation of compliance with the water quality objectives for hardness-dependent metals were calculated using an average receiving water hardness of 41 mg/L. Based on a design hardness of 41 mg/L, the applicable CTR acute and chronic criteria for copper in the effluent are 6.0 and 4.4 µg/L, respectively as total concentrations. Additionally, using a design hardness of 41 mg/L, the applicable Basin Plan objective for copper is 5.7 µg/L, as a dissolved concentration.

Based on one sample collected during the February 2017 storm event, the MEC for total copper was 8.0 µg/L. Upstream receiving water results during the same storm event ranged from 2.2 to 6.6 µg/L. No downstream receiving water results were collected for copper during the permit term. Total recoverable copper results from April 2019 for PND-003 submitted in the ROWD was non-detect based on one result. A storm water action level of 33.4 µg/L for total recoverable copper has been established in this Order based on the NAL in the Industrial General Permit. If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMP's in order to reduce copper in the storm water discharge

d. **Iron.** U.S. EPA developed National Recommended Ambient Water Quality Criteria (NAWQC) for the protection of freshwater aquatic life for iron. The recommended 4-day average (chronic) criterion is 1,000 µg/L. In addition, the State Water Board Division of Drinking Water (DDW) has established Secondary MCL's to assist public drinking water systems in managing their drinking water for public welfare considerations, such as taste, color, and odor. The Secondary MCL for iron is 300 µg/L for protection of the MUN beneficial use. Title 22 requires compliance with Secondary MCL's on an annual average basis.

Total recoverable iron concentration in the effluent was 4,570 ug/L, based on one sample collected in February 2017. Based on two samples collected in the upstream receiving water during the February 2017 discharge, total recoverable iron concentrations in the upstream receiving water ranged from 1,240 to 4,790 µg/L. No downstream receiving water

results for iron were collected during the permit term. Total recoverable iron results from April 2019 for PND-003 submitted in the ROWD was 272 µg/L based on one result. Based on the available data, total recoverable iron concentrations in the effluent exceed the Secondary MCL and the U.S. EPA NAWQC. It is expected that future monitoring of iron might be lower than the 2017 result given the newly-implemented BMPs. Additionally, these results were all total recoverable fractions; however, in assessing compliance with secondary MCLs, filtered samples (1.5 microns) is allowable. Monitoring with a 1.5 micron filter is included in this Order to better assess iron. Therefore, this Order includes a storm water action level for total iron of 1,000 µg/L based on the NAL values in Table 2 of the Industrial General Permit. If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMP's in order to reduce iron concentrations in the storm water discharge. This Order also includes monitoring of the effluent, upstream receiving water, and downstream receiving water for filtered iron in order to assess compliance with the secondary MCL.

e. **Manganese.** DDW has established Secondary MCL's to assist public drinking water systems in managing their drinking water for public welfare considerations, such as taste, color, and odor. The Secondary MCL for manganese is 50 µg/L for protection of the MUN beneficial use. Title 22 requires compliance with Secondary MCL's on an annual average basis.

   Total recoverable manganese concentration in the effluent was 470 µg/L, based on one sample collected during the February 2017 storm event. During the same storm event, two upstream receiving water results were collected, ranging from 27.4 to 95 µg/L. No downstream receiving water results were collected for manganese during the permit term. Total recoverable manganese results from April 2019 for PND-003 submitted in the ROWD was 74.2 µg/L based on one result. Based on the available data, total recoverable manganese concentrations in the effluent did exceed the Secondary MCL. However, these results were all total recoverable fractions. However, in assessing compliance with secondary MCLs, filtered samples (1.5 microns) is allowable. Monitoring with a 1.5 micron filter is included in this Order to better assess manganese in the effluent, upstream receiving water, and downstream receiving water. Therefore, a storm water action level for manganese has not been established in this Order at this time, due to the lack of dissolved manganese data.

f. **pH.** The Basin Plan includes a water quality objective for surface waters (except for Goose Lake) that the "...pH shall not be depressed below 6.5 nor raised above 8.5." Based on one sample collected during the February 2017 storm event, effluent pH was 5.3. Upstream receiving water results during the same storm event ranged from 6.8-7.2, and downstream receiving water was 6.5-6.8. Based on monitoring data indicating that the downstream receiving water is in compliance with the Basin Plan

objectives, the Central Valley Water Board finds that the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the Basin Plan water quality objectives for pH. Therefore, this Order does not include WQBEL's or action levels for pH. However, as discussed in section IV.B.2 of this Fact Sheet, this Order includes technology-based minimum and maximum effluent limitations of 6.0 and 9.0, respectively.

g. **Settleable Solids.** The Basin Plan states that waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses. To ensure compliance with the Basin Plan objectives, Order R5-2016-0025 included an average monthly effluent limit (AMEL) and maximum daily effluent limit (MDEL) for settleable solids of 0.1 ml/L and 0.2 ml/L, respectively. Settleable solids was not detected in the effluent during the February 2017 storm event sampling. Additionally, settleable solids results from March and April 2019 for PND-003 submitted in the ROWD ranged from non-detect to 0.1 based on five samples. Therefore, the discharge is not causing exceedances of the applicable water quality objectives in the downstream receiving water for settleable solids and effluent limits for settleable solids have not been retained in this Order. Removal of these effluent limitations is in accordance with the federal anti-backsliding regulations (see section IV.D.3 of this Fact Sheet).

h. **Tannins and Lignins.** For inland surface waters, the Basin Plan states that "[w]ater shall be free of discoloration that causes nuisance or adversely effects beneficial uses." No numeric criteria or objectives for tannins and lignins have been developed. Tannins and lignins are generated from wood products and could cause discoloration or a pH shift of the effluent or receiving water. Some studies have indicated that elevated levels of tannins and lignins are harmful to aquatic life.

Based on one sample collected during the February 2017 storm event, the MEC for tannins and lignins was 20.7 mg/L. Upstream receiving water results during the same storm event ranged from non-detect to 0.1044 mg/L as an estimated value. No downstream receiving water results were collected for tannins and lignins during the permit term. Based on the levels of tannins and lignins in the effluent and the nature of runoff from sawmill operations, storm water action level of 30 mg/L for tannins and lignins has been included in this Order. If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMP's in order to reduce tannins and lignins in the storm water discharge.

i. **Total Suspended Solids (TSS).** For inland surface waters, the Basin Plan states, "[w]aters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses." The storm water annual average numeric action level value in the for

General Sawmills and Planing Mills (SIC code 2421) for TSS is 100 mg/L and the instantaneous maximum is 400 mg/L.

Based on one sample collected during the February 2017 storm event, the MEC for TSS was 49 mg/L. Upstream receiving water results during the same storm event was 9.3 mg/L. No downstream receiving water results were collected for TSS during the permit term. Based on the levels of TSS in the effluent and the nature of runoff from sawmill operations, an annual average storm water action level of 100 mg/L and a maximum daily storm water action level of 400 mg/L for TSS has been established in this Order based on the NAL values in Table 2 of the Industrial General Permit. If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMP's in order to reduce the TSS in the storm water discharge.

j. **Zinc.** The CTR includes hardness-dependent criteria for the protection of freshwater aquatic life for zinc. These criteria for zinc are presented in dissolved concentrations, as 1-hour acute criteria and 4-day chronic criteria. U.S. EPA recommends conversion factors to translate dissolved concentrations to total concentrations. Default U.S. EPA translators were used for the effluent and receiving water. The Basin Plan also includes hardness-dependent criteria for zinc for the Sacramento River and its tributaries above the State Highway 32 bridge at Hamilton City, expressed in dissolved concentrations.

As described in section IV.C.2.e of this Fact Sheet, the applicable criteria for evaluation of compliance with the water quality objectives for hardness-dependent metals were calculated using an average receiving water hardness of 41 mg/L. Based on a design hardness of 41 mg/L, the applicable CTR acute and chronic criteria for zinc in the effluent are both 56 µg/L, respectively as total concentrations. Additionally, using a design hardness of 41 mg/L, the applicable Basin Plan objective for zinc is 16 µg/L, as a dissolved concentration.

Based on one sample collected during the February 2017 storm event, the MEC for total recoverable zinc was 34.6 µg/L. Upstream receiving water results during the same storm event ranged from 4.9 to 13.7 µg/L. No downstream receiving water results were collected for zinc during the permit term. Total recoverable zinc results from April 2019 for PND-003 submitted in the ROWD was non-detect based on one result. A storm water action level of 260 µg/L for zinc has been established in this Order based on the NAL in the Industrial General Permit. If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMP's in order to reduce zinc in the storm water discharge.

4. WQBEL Calculations

This Order does not include WQBELs for individual pollutants.

5. Whole Effluent Toxicity (WET)

For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Discharger to conduct whole effluent toxicity testing for acute and chronic toxicity, as specified in the MRP (Attachment E section V.). This Order also contains effluent limitations for acute toxicity and requires the Discharger to implement best management practices to investigate the causes of and identify corrective actions to reduce or eliminate effluent toxicity.

a. **Acute Toxicity.** 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 at page section 3.1.20). The Basin Plan also states 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. Acute whole effluent toxicity is not a priority pollutant. Therefore, due to the site-specific conditions of the discharge, 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 Order as follows:

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

70%, minimum for any one bioassay; and

90% median for any three consecutive bioassays.

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 includes effluent limitations expressed in terms of mass and concentration. In addition, pursuant to the exceptions to mass limitations provided in 40 C.F.R. section 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when 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.

2. Averaging Periods for Effluent Limitations

For non-continuous discharges, such as those from this Facility, 40 C.F.R. section 122.45(e) states:

> Non-continuous discharge: Discharges which are not continuous, as defined in section 122.2, shall be particularly described and limited, considering the following factors, as appropriate:
>
> a. Frequency (for example, a batch discharge shall not occur more than once every 3 weeks);
>
> b. Total mass (for example, not to exceed 100 kilograms of zinc and 200 kilograms of chromium per batch discharge)
>
> c. Maximum rate of discharge of pollutants during the discharge (for example, not to exceed 2 kilograms of zinc per minute); and
>
> d. Prohibition or limitation of specified pollutants by mass, concentration, or other appropriate measure (for example, shall not contain at any time more than 0.1 mg/1 zinc or more than 250 grams (1/4 kilogram) of zinc in any discharge).
>
> Thus, the Central Valley Water Board is not restricted to a particular averaging period for non-continuous discharges.

3. Satisfaction of Anti-Backsliding Requirements

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

The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, with the exception of effluent limitations for settleable solids, total recoverable copper, total recoverable zinc, and total suspended solids. The effluent limitations for these pollutants are less stringent than those in Order R5-2016-0025. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

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

   i. For waters where standards are not attained, CWA section 303(d)(4)(A) specifies that any effluent limit based on a TMDL or other WLA may be revised only if the cumulative effect of all such revised effluent limits based on such TMDL's or WLAs will assure the attainment of such water quality standards.

   ii. For attainment waters, CWA section 303(d)(4)(B) specifies that a limitation based on a water quality standard may be relaxed where the action is consistent with the antidegradation policy.

   The unnamed tributary to Churn Creek is considered an attainment water for settleable solids, total recoverable copper, total recoverable zinc, and total suspended solids because the receiving water is not listed as impaired on the 303(d) list for these constituents. The exceptions in section 303(d)(4) address both waters in attainment with water quality standards and those not in attainment, i.e. waters on the section 303(d) impaired waters list. As discussed in section IV.D.4, below, removal of the effluent limits complies with federal and state antidegradation requirements. Thus, removal of the effluent limitations for settleable solids, total recoverable copper, total recoverable zinc, and total suspended solids from Order R5-2016-0025 meets the exception in CWA section 303(d)(4)(B).

b. **CWA section 402(o)(2).** CWA section 402(o)(2) provides several exceptions to the anti-backsliding regulations. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent

limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

As described further in section IV.C.3 this Fact Sheet, updated information that was not available at the time Order R5-2016-0025 was issued indicates that settleable solids does not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. The updated information that supports the relaxation of effluent limitations for these constituents includes the following:

i. **Settleable Solids.** Effluent settleable solids monitoring data collected during the permit term indicates that the discharge is not causing exceedances of the applicable water quality objectives for settleable solids in the receiving water.

Thus, removal or relaxation of the effluent limitations for settleable solids from Order R5-2016-0025 is in accordance with CWA section 402(o)(2)(B)(i), which allows for the removal of effluent limitations based on information that was not available at the time of permit issuance.

4. Antidegradation Policies

This Order does not allow for an increase in flow or mass of pollutants to the receiving water. Therefore, a complete antidegradation analysis is not necessary. The Order requires compliance with applicable federal technology-based standards and with WQBEL's where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. The permitted discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and the State Anti-Degradation Policy. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

a. **Surface Water.** Previous Order R5-2016-0025 regulated discharge from the Facility as comingle storm water and process water. Since issuance of Order R5-2016-0025, the Discharger has updated its Facility, including adding a second storm water retention pond, adding aerators to both retention ponds, adding a land application area for storm water treatment, isolating first flush storm water and process water to PND-002 (which does not discharge to surface water), and implementing various BMPs at the Facility to reduce debris in surface water. The effluent limitations included in Order R5-2016-0025 were applied to comingled process water and storm water. Given the updates at the Facility, the relevant NPDES discharge in this Order no longer includes process water. Discharge Prohibition III.L is in place to prohibit discharge of process water associated with sawmill, barking, and planing operations. Due to the

Facility changes and discharge prohibitions, the removal of effluent limitations for comingled process water and storm water does not allow for an increase in the mass of pollutants and is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water

b. **Groundwater.** The Discharger utilizes two storm water retention ponds to hold industrial storm water and one log deck recycle pond to hold process wastewater on site. The ponds are unlined, and percolation from the ponds may result in an increase in the concentration of some constituents in groundwater. The State Antidegradation Policy generally prohibits the Central Valley Water Board from authorizing activities that will result in the degradation of high-quality waters unless it has been shown that:

i. The degradation will not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives;

ii. The degradation will not unreasonably affect present and anticipated future beneficial uses;

iii. The discharger will employ BPTC to minimize degradation; and

iv. The degradation is consistent with the maximum benefit to the people of the state.

Though the ponds are unlined, the Central Valley Water Board considers the use of unlined ponds to store and treat process water to be an industry-standard practice that is an appropriate component of an effective suite of best management practices. This Order, specifically the Best Management Practices and Pollution Prevention measures required in section VI.C.3 will require the Discharger to implement BPTC. In addition, the Central Valley Water Board finds, based on existing information, that the limited groundwater degradation that may occur under this Order will not result in exceedances of any applicable groundwater water quality objectives or in any impacts to beneficial uses. Therefore, pollution or nuisance will not occur. Lastly, the limited degradation that may occur under this Order inheres to the maximum benefit of the people of the State because it will occur due to the operation of a facility that is an important economic driver to the region.

The Discharger will also be required to confirm that the discharge has not resulted in pollution or nuisance in a report, the Anti-Degradation Re-evaluation, which the Discharger will submit as part of its permit renewal application. Should the Anti-Degradation Re-evaluation reveal degradation inconsistent with the State Anti-Degradation Policy, the Discharger must propose additional treatment or control measure to further limit any impacts from the discharge.

5. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based effluent limitations for pH, as discussed in IV.B.2 of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. This Order also implements effluent limits for acute toxicity, as discussed in IV.C.5 of this Fact Sheet, to implement the Basin Plan's narrative toxicity objective.

Summary of Final Effluent Limitations
Discharge Points 003 and 004

Table F-6. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations	Basis[1]
pH	standard units	Instantaneous Min 6.0 Instantaneous Max 9.0	ELG
Acute Toxicity	% survival	70% minimum for any one bioassay; 90% median for any three consecutive bioassays	BP

Table F-6 Notes:

1. BP – Based on water quality objectives contained in the Basin Plan.
   ELG – Effluent Limitation Guideline.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Recycling Specifications – Not Applicable

V. 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 Plan. The Basin Plan states 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 Plan includes numeric and narrative water quality objectives for various beneficial uses and water bodies. This Order contains receiving surface water

limitations based on the Basin Plan numerical and narrative water quality objectives for 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.

a. **Bacteria**. On 7 August 2018 the State Water Board adopted Resolution No. 2018-0038 establishing Bacteria Provisions, which are specifically titled "Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Bacteria Provisions and a Water Quality Standards Variance Policy" and "Amendment to the Water Quality Control Plan for Ocean Waters of California—Bacteria Provisions and a Water Quality Standards Variance Policy." The Bacteria Water Quality Objectives established in the Bacteria Provisions supersede any numeric water quality objective for bacteria for the REC-1 beneficial use contained in a water quality control plan before the effective date of the Bacteria Provisions.

The Bacteria Water Quality Objectives correspond with the risk protection level of 32 illnesses per 1,000 recreators and use E. coli as the indicator of pathogens in freshwaters and enterococci as the indicator of pathogens in estuarine waters and ocean waters.

The Bacteria Provisions provide that where a permit, waste discharge requirement (WDR), or waiver of WDR includes an effluent limitation or discharge requirement that is derived from a water quality objective or other guidance to control bacteria (for any beneficial use) that is more stringent than the Bacteria Water Quality Objective, the Bacteria Water Quality Objective would not be implemented in the permit, WDR, or waiver of WDR. This standard has not been met in this Order, therefore, the Bacteria Water Quality Objective has been implemented as a receiving water limitation.

The bacteria receiving water limitation in this Order has been established based on the Bacterial Water Quality Objective for inland surface waters, which requires the six-week rolling geometric mean of Escherichia coli (E. coli) shall not exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and a statistical threshold value (STV) of 320 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

B. Groundwater

1. The beneficial uses of the underlying groundwater are municipal and domestic supply, industrial service supply, industrial process supply, and agricultural supply.

2. **Basin Plan** water quality objectives include narrative objectives for chemical constituents, tastes and odors, and toxicity of groundwater. The toxicity objective requires that groundwater be maintained free of toxic substances in

concentrations that produce detrimental physiological responses in humans, plants, animals, or aquatic life. The chemical constituent objective states groundwater shall not contain chemical constituents in concentrations that adversely affect any beneficial use. The tastes and odors objective prohibit taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses. The Basin Plan also establishes numerical water quality objectives for chemical constituents and radioactivity in groundwaters designated as municipal supply. These include, at a minimum, compliance with MCLs in Title 22 of the CCR. The bacteria objective prohibits coliform organisms at or above 2.2 MPN/100 mL. The Basin Plan requires the application of the most stringent objective necessary to ensure that waters do not contain chemical constituents, toxic substances, radionuclides, taste- or odor-producing substances, or bacteria in concentrations that adversely affect municipal or domestic supply, agricultural supply, industrial supply or some other beneficial use.

3. **Groundwater limitations** are required to protect the beneficial uses of the underlying groundwater.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

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

B. Special Provisions

1. Reopener Provisions

a. **Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS).** On 17 January 2020, certain Basin Plan Amendments to incorporate new strategies for addressing ongoing salt and nitrate accumulation in the Central Valley became effective. Other provisions subject to U.S. EPA approval became effective on 2 November 2020,

when approved by U.S. EPA. As the Central Valley Water Board moves forward to implement those provisions that are now in effect, this Order may be amended or modified to incorporate new or modified requirements necessary for implementation of the Basin Plan Amendments. More information regarding these Amendments can be found on the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) web page: (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/)

b. **Wood Fuel Stockpile Leachate.** The Discharger is considering the option of discharging wood fuel stockpile leachate to surface water. If the Discharger submits a characterization of the leachate and it is determined that the leachate is of similar quality to storm water after the first flush, then this reopener allows for modification of the Order to modify Prohibition I and related sections to allow the discharge of wood fuel stockpile leachate to surface water.

c. **Boiler Blowdown.** The Discharger is considering the option of discharging boiler blowdown to the recycle pond or to the retention ponds for discharge to surface water. If the Discharger fully characterizes the boiler blowdown and it is determined that discharge of boiler blowdown at the Facility represents best practicable treatment or control, this Order may be reopened to modify Prohibition H and related sections to allow the discharge of boiler blowdown.

2. Special Studies and Additional Monitoring Requirements

a. **Storm Water Action Levels and Best Management Practice Improvement Evaluation.** As discussed in section IV.C.3 of this Fact Sheet, this Order establishes storm water action levels for constituents of concern in discharges of industrial storm water. The storm water action levels are pollutant concentrations above which the Central Valley Water Board has determined the storm water discharge could adversely affect receiving water quality (and control measures must be evaluated). The storm water action levels are not effluent limitations. The levels are used to determine if storm water discharges from the Facility merit further monitoring to ensure that the Facility has been successful in implementing the SWPPP and/or if storm water pollution control measures must be reevaluated and improved upon.

In order to address storm water action level exceedances and/or receiving water limitation violations, the Discharger must evaluate BMPs and make necessary improvements to the Facility BMPs in order to reduce pollutants in the storm water discharge and to ensure protection of water quality.

c. **Facility Water Balance Evaluation Study.** The Discharger shall prepare and submit a work plan for Central Valley Water Board staff approval to study the water balance for the log deck area, land application area,

retention ponds, and recycle pond to determine if the Facility currently has adequate pond storage for each runoff area (1) to ensure process wastewater is not discharged to surface water and (2) to ensure that BPTC is employed by reducing reliance on bypassing land application area treatment.

d. **First Flush Standard Operating Procedures.** The Discharger shall prepare and submit standard operating procedures for capturing the first flush after log deck sprinkling has ceased to ensure that the Facility is consistently operating to maximize storage for first flush water.

e. **Antidegradation Re-evaluation.** The Discharger is required to submit an Antidegradation Re-evaluation, as specified in section VI.C.2.d, to confirm that the land discharge continues to be consistent with the State Anti-degradation Policy.

3. Best Management Practices and Pollution Prevention

a. **Salinity Evaluation and Minimization Plan**. An Evaluation and Minimization Plan for salinity is required to be maintained in this Order to ensure adequate measures are developed and implemented by the Discharger to reduce the discharge of salinity to the unnamed tributary to Churn Creek.

d. **Storm Water Pollution Prevention Plan (SWPPP).** This Order requires the Discharger to implement BMP's, including treatment controls where necessary, in order to support attainment of water quality standards. The use of BMP's to control or abate the discharge of pollutants is allowed by 40 C.F.R. section 122.44(k)(3) because effluent limitations are infeasible and BMP's are reasonably necessary to achieve effluent limitations and are standards or to carry out the purposes and intent of the CWA. (40 C.F.R. 122.44(k)(4).)

This Order requires the Discharger to continue to implement a site-specific SWPPP for the Facility. The SWPPP is necessary to identify potential sources of pollutants that may come in contact with storm water and to control or abate the discharge of pollutants to surface water or groundwater.

In order to maintain an accurate and useful SWPPP, the SWPPP must be revised when whenever there is a change in construction, site operation, or maintenance, which may affect the discharge of significant quantities of pollutants to surface water or groundwater. The SWPPP must also be amended if there are violations of this Order, or the Discharger has not achieved the general objectives of controlling pollutants in the storm water discharges.

c. **Facility-Specific BMP – First Flush Collection.** This Order specifies a BMP that defines a quantity of storm water that must be collected, after cessation of log sprinkling, and discharged to the Facility log deck retention pond prior to subsequent storm water being allowed to be discharged off-site to surface water. The "first flush" collection may occur more than once in a wet season if the Discharger intermittently sprinkles logs with pond water during the wet season.

4. Construction, Operation, and Maintenance Specifications

a. **Retention Ponds and Log Deck Recycle Pond Operating Requirements.** The operation and maintenance specifications for the retention ponds and log deck recycle pond are necessary to protect the beneficial uses of the groundwater and surface water. The specifications included in this Order are retained from Order R5-2016-0025. In addition, reporting requirements related to use of the retention pond and log deck recycle pond are required to monitor their use and the potential impact on groundwater.

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

6. Other Special Provisions

a. **Sludge, Wood Waste, and/or Ash Management.** Sludge disposal provisions are necessary to ensure proper disposal of collected screening, sludges, wood ash, wood waste, and other solids removed from liquid wastes, ponds, or other sources in a manner that is consistent with Title 27, California Code of Regulations (CCR), Division 2, Subdivision 1, Section 20005, et seq, and approved by the Executive Officer

b. **Municipal Recycled Water Use.** The Discharger utilizes recycled water at the Facility and the use of recycled water shall be in accordance with California Code of Regulations (CCR) Title 22, Chapter 3.

c. **Discharge Prioritization.** Industrial storm water at the Facility receives its maximum treatment when it has been applied to the Land Application Area and then stored in Retention Pond 2 (PND-003) for disposal at Discharge Point 004. In order to achieve the best quality effluent, use of the Land Application Area and Discharge Point 004 must be prioritized during storm water discharges.

7. Compliance Schedules – Not Applicable

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Valley Water Board to establish

monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring – Not Applicable

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. Effluent monitoring frequencies and sample types for flow (continuous), oil and grease (twice yearly), pH (weekly), total dissolved solids (weekly), turbidity (weekly), electrical conductivity (weekly), total suspended solids (weekly), hardness (monthly), alkalinity (monthly), total recoverable copper (monthly), total recoverable zinc (monthly), total recoverable aluminum (monthly), chemical oxygen demand (monthly), electrical conductivity (weekly), settleable solids (weekly), and tannins and lignins (monthly) have been retained from Order No. R5-2016-0025 to determine compliance with effluent limitations and/or storm water action levels for these parameters and to otherwise characterize the discharge for these parameters.

3. Monitoring data collected over the previous permit term for bis (2-ethylhexyl) phthalate did not demonstrate reasonable potential to exceed water quality objectives/criteria. Thus, specific monitoring requirements for these parameters have not been retained from Order No. R5-2016-0025.

4. This Order includes additional monthly monitoring of filtered manganese, filtered iron, and filtered aluminum in order to compare the discharge to secondary MCLs.

5. In accordance with Section 1.3 of the SIP, periodic monitoring for priority pollutants for which criteria or objectives apply and for which no effluent limitations have been established is required. This Order requires monitoring during the first discharge event that occurs during the permit term in order to collect data to conduct an RPA for the next permit renewal. See section IX.C of the MRP for more detailed requirements related to performing priority pollutant monitoring.

6. Water Code section 13176, subdivision (a), states: “The analysis of any material required by [Water Code sections 13000-16104] shall be performed by a laboratory that has accreditation or certification pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the

Health and Safety Code." The DDW accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP).

7. Section 13176 cannot be interpreted in a manner that would violate federal holding time requirements that apply to NPDES permits pursuant to the CWA. (Wat. Code sections 13370, subd. (c), 13372, 13377.). Section 13176 is inapplicable to NPDES permits to the extent it is inconsistent with CWA requirements. (Wat. Code section 13372, subd. (a).) Lab accreditation is not required for field tests such as tests for color, odor, turbidity, pH, temperature, dissolved oxygen, electrical conductivity, and disinfectant residual. The holding time requirements are 15 minutes for pH (40 C.F.R. section 136.3(e), Table II) Due to the location of the Facility, it is both legally and factually impossible for the Discharger to comply with section 13176 for constituents with short holding times.

C. Whole Effluent Toxicity Testing Requirements

Aquatic toxicity testing is necessary to evaluate the aggregate toxic effect of a mixture of toxicants in the effluent on the receiving water. Acute toxicity testing is conducted over a short time period and measures mortality, while chronic toxicity testing is conducted over a short or longer period and may measure mortality, reproduction, and growth. For this permit, aquatic toxicity testing is to be performed following methods identified in the Code of Federal Regulations, title 40, part 136, or other U.S. EPA-approved methods, or included in the following U.S. EPA method manuals: Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition (EPA-821-R-02-013).

Twice yearly acute whole effluent toxicity testing is required to demonstrate compliance with the toxicity receiving water limitation and acute toxicity effluent limitation. Yearly chronic whole effluent toxicity testing is required to demonstrate compliance with the toxicity receiving water limitation.

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.

2. Groundwater

a. Water Code section 13267 states, in part, "(a) A Regional Water Board, in establishing waste discharge requirements may investigate the quality of any waters of the state within its region" and "(b)(1) In conducting an investigation, the Regional Water Board may require that any person who discharges waste that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Regional Water 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." 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, a Regional Water 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 and Reporting Program is issued pursuant to Water Code section 13267. The groundwater monitoring and reporting program required by this Order and the Monitoring and Reporting Program are necessary to assure compliance with these waste discharge requirements. The Discharger is responsible for the discharges of waste at the facility subject to this Order.

b. Monitoring of the groundwater must be conducted to determine if the discharge has caused an increase in constituent concentrations, when compared to background. The monitoring must, at a minimum, require a complete assessment of groundwater impacts including the vertical and lateral extent of degradation, an assessment of all wastewater-related constituents which may have migrated to groundwater, an analysis of whether additional or different methods of treatment or control of the discharge are necessary to provide best practicable treatment or control to comply with the State Anti-Degradation Policy. Economic analysis is only one of many factors considered in determining best practicable treatment or control. If monitoring indicates that the discharge has incrementally increased constituent concentrations in groundwater above background, this permit may be reopened and modified. Until groundwater monitoring is sufficient, this Order contains Groundwater Limitations that allow groundwater quality to be degraded for certain constituents when compared to background groundwater quality, but not to exceed water quality objectives. If groundwater quality has been degraded by the discharge, the incremental change in pollutant concentration (when compared with background) may not be increased. If groundwater quality has been or may be degraded by the discharge, this Order may be reopened, and specific numeric limitations established consistent with the State Anti-Degradation Policy and the Basin Plan.

c. This Order requires the Discharger to continue groundwater monitoring and includes a regular schedule of groundwater monitoring in the attached Monitoring and Reporting Program. The groundwater monitoring reports are necessary to evaluate impacts to waters of the State to assure protection of beneficial uses and compliance with Central Valley Water Board plans and policies, including the State Anti-Degradation Policy. Evidence in the record includes effluent monitoring data that indicates the presence of constituents that may degrade groundwater and surface water.

E. Other Monitoring Requirements

1. Precipitation Monitoring

Precipitation monitoring is necessary to assess the amount of rainfall that falls on the log deck area.

2. Ash Monitoring

The annual ash report is necessary to determine the quantity of ash generated at the facility and to ensure the proper handling of such material.

3. Pond Monitoring

Retention ponds and log deck recycle pond monitoring requirements for freeboard and dissolved oxygen is necessary to assess compliance with pond operating requirements and to ensure pond integrity. Retention pond and log deck recycle pond monitoring for pH, electrical conductivity, chemical oxygen demand, copper, zinc, aluminum, iron, manganese, and total dissolved solids is necessary to assess the impacts of the discharge on groundwater.

VIII. PUBLIC PARTICIPATION

The Central Valley Water Board has considered the issuance of WDR's that will serve as an NPDES permit for Shasta Lake Division. 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 Persons

The Central Valley Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDR's for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through physical posting, mailing, and internet posting.

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

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDR's as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Central Valley Water Board at the address on the cover page of this Order.

To be fully responded to by staff and considered by the Central Valley Water Board, the written comments were due at the Central Valley Water Board office by 5:00 p.m. on 13 May 2022.

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: **10 June 2022**
Time: **10:30 a.m.**
Location: Regional Water Quality Control Board, Central Valley Region and Online
11020 Sun Center Dr., Suite #200
Rancho Cordova, CA 95670

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

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

Or by email at waterqualitypetitions@waterboards.ca.gov

Instructions on how to file a petition for review (http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml) are available on the Internet.

E. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the Central Valley Water Board's Redding Office 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 (530) 224-4845.

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Nicolette Dentoni at 559-444-2505, or Nicolette.Dentoni@waterboards.ca.gov.

G.

ATTACHMENT G – SUMMARY OF COMPLIANCE WITH RECEIVING WATER OBJECTIVES

Constituent	Units	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	SWAL	Reasonable Potential
Aluminum, Total Recoverable	ug/L	NA	460	1200	460				750	Inconclusive
Chemical Oxygen Demand	mg/L	NA	120						120	Inconclusive
Copper, Total Recoverable	ug/L	NA	2.5	6.0	4.4				5.6	Inconclusive
Iron, Total Recoverable	ug/L	NA	1,000		1,000				1,000	Inconclusive
Manganese, Total Recoverable	ug/L	NA	50							Inconclusive
Tannins and Lignins	mg/L	3.22	30						30	No
Total Suspended Solids	mg/L	NA	100						100	Inconclusive
Zinc, Total Recoverable	ug/L	NA	56	56	56				50	Inconclusive

General Note: All inorganic concentrations are given as a total concentration.

Abbreviations used in this table:

B = Maximum Receiving Water Concentration or lowest detection level, if non-detect
C = Criterion used for Reasonable Potential Analysis
CMC = Criterion Maximum Concentration (CTR or NTR)
CCC = Criterion Continuous Concentration (CTR or NTR)
Water & Org = Human Health Criterion for Consumption of Water & Organisms (CTR or NTR)
Org Only = Human Health Criterion for Consumption of Organisms Only (CTR or NTR)

Basin Plan = Numeric Site-Specific Basin Plan Water Quality Objective
SWAL = Storm Water Action Level
NA = Not Available
ND = Non-detect