CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CA0082490 ORDER R5-2025-0012

WASTE DISCHARGE REQUIREMENTS FOR THE BURNEY FOREST PRODUCTS, A JOINT VENTURE, SHASTA GREEN, INC., AND SIERRA PACIFIC INDUSTRIES, BURNEY FOREST POWER, SHASTA COUNTY

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

Table 1. Discharger Information

Discharger:	Burney Forest Products, a joint venture, Shasta Green, Inc., and Sierra Pacific Industries
Name of Facility:	Burney Forest Products
Facility Street Address:	35586-B Highway 299 E
Facility City, State, Zip:	Burney, CA 96013
Facility County:	Shasta County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Industrial Storm Water	40° 52’ 35” N	121° 43’ 00” W	Canyon Creek
002	Process Wastewater	40° 52’ 52” N	121° 43’ 15” W	Log Deck Recycle Pond
003	Process Wastewater	40° 52’ 43” N	121° 43’ 15” W	Power Plant Pond

Table 3. Administrative Information

This Order was Adopted on:	**21 February 2025**
This Order shall become effective on:	**1 April 2025**
This Order shall expire on:	**31 March 2030**
The Discharger shall file a Report of Waste Discharge (ROWD) as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations (CCR), and an application for reissuance of a NPDES permit no later than:	**31 March 2029**
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 **21 February 2025**.

Patrick Pulupa Date: 2025.03.10 12:38:05 -07'00'

PATRICK PULUPA, Executive Officer

WASTE DISCHARGE REQUIREMENTS

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TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Burney Forest Products (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

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

A. Legal Authorities. This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

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

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

D. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections **IV.B, IV.C, V.B, VI.C.2.b., VI.C.4.a., and VI.C.6.** are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

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

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

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

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

THEREFORE, IT IS HEREBY ORDERED that Order R5-2019-0048 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 industrial storm water 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 of waste classified as ‘hazardous’, as defined in the CCR, title 22, section 66261.1 et seq., including water treatment chemicals, solvents, or petroleum products (e.g., grease, gasoline, and diesel), is prohibited.

E. The discharge of recycle water from log yard sprinkling, commingled recycle and storm water (i.e., “first flush”), cooling tower blowdown, boiler blowdown, boiler and cooling tower recycle water treatment systems effluent (i.e., ROS reject wastewater, VSEP concentrate, sand filter backwash wastewater), or other waste of recognizable sawmill or cogeneration origin to surface waters or surface water drainage courses is prohibited.

F. The discharge of leachate from wood fuel stockpiles and ash piles to surface waters or surface water drainage courses is prohibited. Best management practices (BMPs) must be implemented to prevent such discharge.

G. The discharge of ash, bark, sawdust, wood, or any waste recognized as originating from sawmill or cogeneration operations to surface waters or surface water drainage courses is prohibited.

H. The discharge of ash and cooling tower sludge to surface waters or surface water drainage courses is prohibited.

I. The discharge of debris (as defined in Attachment A), which includes bark, sawdust, wood, or any waste recognized as originating from the sawmill or cogeneration operations to surface waters or surface water drainage courses is prohibited. Best management practices (BMPs) must be implemented to prevent such discharge.

J. The discharge of process wastewater from barking, sawmill, and planing operations, as defined in 40 C.F.R. Part 429, to surface waters or surface water drainage courses is prohibited.

K. Discharge of waste classified as “hazardous” as defined in CCR, Title 23, section 2521(a), CCR, section 2510, et seq., or “designated” (other than as specifically allowed in this Order), as defined in section 13173 of the Water Code, to the ponds is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Discharge Point 001

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

a. **pH:**

i. 6.0 Standard Units (SU) as an instantaneous minimum.

ii. 9.0 SU as an instantaneous maximum.

b. **Acute Whole Effluent Toxicity MDEL.** No *Oncorhynchus mykiss* (rainbow trout) acute aquatic toxicity test shall result in a “Fail” at the Instream Waste Concentration (IWC) AND a percent effect greater than or equal to 50 percent.

c. **Acute Whole Effluent Toxicity MMEL.** No more than one *Oncorhynchus mykiss* (rainbow trout) acute aquatic toxicity test initiated in a toxicity calendar month shall result in a "Fail" at the IWC.

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 Canyon Creek**:**

1. **Bacteria.** The six-week rolling geometric mean of Escherichia coli (E. coli) to exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and a statistical threshold value (STV) of 320 cfu/100 mL 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 (MCLs) 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; nor

    b. Radionuclides to be present in excess of the MCLs specified in Table 64442 of section 64442 and Table 64443 of section 64443 of Title 22 of the CCR.

11. **Salinity.** The electrical conductivity shall not exceed 230 µmhos/cm (50 percentile) or 235 µmhos/cm (90 percentile) at Knights Landing above Colusa Basin Drain; or 240 µmhos/cm (50 percentile) or 340 µmhos/cm (90 percentile) at I Street Bridge, based on previous 10 years of record.

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

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

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

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

16. **Temperature.** The natural temperature to be increased by more than 5° Fahrenheit. Compliance to be determined based on the difference in temperature at Monitoring Locations RSW-001 and RSW-002.

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

18. **Turbidity.**

    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:

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

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

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

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

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

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

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

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

   ii. Controls any pollutant limited in the Order.

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

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

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

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

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

i. Safeguard to electric power failure:

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

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

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

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

The technical report shall:

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

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

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

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

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

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

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

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

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

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

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

r. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Central Valley Water Board by telephone (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 C.F.R. section 122.62, including, but not limited to:

i. If new or amended applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or

amendments thereto, this permit may be reopened and modified in accordance with the new or amended standards.

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

b. 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. **Water Effects Ratios (WER) and Metal Translators.** A default WER of 1.0 has been used in this Order for calculating criteria for applicable inorganic constituents. In addition, default dissolved-to-total metal translators have been used to convert water quality objectives from dissolved to total recoverable. If the Discharger performs studies to determine site-specific WERs and/or site-specific dissolved-to-total metal translators, this Order may be reopened to modify the effluent limitations for the applicable inorganic constituents.

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

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 Point 001 exceeds any industrial storm water action level in Table 4 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 violation. The BMP Improvement Evaluation and proposed BMP improvements must be submitted to the Central Valley Water Board within 60 days of the exceedance or 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 4. Storm Water Action Levels

Parameter	Units	Annual Average Action Level	Instantaneous Maximum Action Level
Aluminum, Total Recoverable	µg/L	1,100	--
Chemical Oxygen Demand	mg/L	120	--
Electrical Conductivity @ 25°C	µmhos/cm	700	--
Oil and Grease	mg/L	15	25
Settleable Solids	mL/L	0.2	--
Tannins and Lignins	mg/L	30	--
Total Suspended Solids	mg/L	100	400
Zinc, Total Recoverable	µg/L	260	--

i. Compliance with the Annual Average Storm Water Action Level will be evaluated as an annual average of all 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 Level occurs when two or more analytical results within a reporting year exceed the Instantaneous Maximum Storm Water Action Level.

iii. The Storm Water Action Levels in Table 4 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 a Storm Water Action Level requires the Discharger to conduct a BMP Improvement Evaluation. If the Storm Water Action Level continues to be exceeded after implementation of initial BMP improvements, the Discharger shall demonstrate that no further pollutant reduction is technologically available and economically achievable in light of best industry practice to meet the action level.

b. **Leak Detection Test**. The Discharger shall develop a workplan for conducting leak detection testing for the pond liner in both wastewater storage units, the log deck recycle pond and the power plant pond. The work plan shall be submitted to the Central Valley Water Board for approval within **18 months of the effective date of this Order**. The results of the Leak Detection Test shall be submitted within **4 years of the effective date of this Order**.

c. **Toxicity Reduction Evaluation (TRE):** The Discharger is required to initiate a TRE, as detailed in the Monitoring and Reporting Program (Attachment E, Section V.H), when any combination of two or more MDEL or MMEL violations occur within a single toxicity calendar month or within two successive toxicity calendar months. In addition, if other information indicates toxicity (e.g., results of additional monitoring, results of monitoring at a higher concentration than the IWC, fish kills, intermittent recurring toxicity) or if there is no effluent available to complete a routine monitoring test, MDEL test, or MMEL compliance test, the Executive Officer may require a TRE.

3. Best Management Practices and Pollution Prevention

a. **Salinity Evaluation and Minimization Plan (SEMP).** The Discharger shall continue to implement a SEMP to identify and address sources of salinity discharged from the Facility.

The Discharger submitted a Notice of Intent to comply with the Salt Control Program and selected the Alternative Permitting Approach. Accordingly, the Discharger shall participate in the CV-SALTS Prioritization and Optimization (P&O) Study. Furthermore, an evaluation of the effectiveness of the SEMP shall be submitted with the ROWD. The evaluation shall include, at minimum, the reporting year annual average concentrations of effluent electrical conductivity during the term of the Order.

i. **Surface Water Discharge.** If the industrial storm water discharge (SW-001) annual average electrical conductivity concentration for any reporting year (beginning July 1 and ending June 30) exceeds the SWAL of 700 µmhos/cm (Section VI.C.2.a.), the Discharger shall evaluate possible sources of salinity contributing to the exceedance of the trigger and update the SEMP to include a plan of action to control salinity.

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 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-9 of the Monitoring and Reporting Program. The SWPPP must include the information needed to determine 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 pollutants sources;

(f) Minimum BMPs;

(g) Advanced BMPs;

(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 surface water or groundwater. The SWPPP must also be amended if there are violations of this permit, or 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 Best Management Practice (BMP) – First Flush Collection.** Each year, after cessation of log yard sprinkling, the Discharger shall collect the first 2 inches of rainfall (i.e., “first flush” or “commingled log deck sprinkle water and storm water”) from the log deck

area and discharge the flush event to the log deck recycle pond. The “first flush” shall not reach surface water. The “first flush” must be collected and discharged to the log deck recycle pond after any subsequent sprinkling of the logs prior to storm water discharge to surface water. This Facility-specific BMP may be modified by approval of the Executive Officer.

4. Construction, Operation and Maintenance Specifications

a. **Log Deck Recycle Pond, Power Plant Pond, and Storm Water Retention Pond Operating Requirements.**

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

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

iii. Ponds 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.

iv. Freeboard shall never be less than 2 feet (measured vertically to the lowest pond 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 or 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 25-year, 24-hour storm event.

v. The Log Deck Recycle Pond shall have enough capacity to store the runoff from the log deck resulting from 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 wet season.

vi. Objectionable odors originating at the Facility shall not be perceivable beyond the limits of the Facility.

vii. As a means of discerning compliance with section VI.C.4.a.vi, above, the dissolved oxygen content in the upper zone (1 foot) of wastewater ponds shall not be less than 1.0 mg/L.

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

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 approved by the Executive Officer and consistent with Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in CCR, Title 27, division 2, subdivision 1, section 20005, et seq.

ii. **Ash Management Plan.** The Discharger shall submit an ash management plan to the Central Valley Water Board in accordance with the time schedule included in the Technical Reports Table E-9. The plan shall describe, at a minimum:

(a) Sources and amount 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 and bottom ash removed from the Facility shall be:

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

(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 20220(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.

7. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

A. Industrial Storm Water Action Levels (section VI.C.2.a, Table 4). Compliance with the annual average SWALs in Table 4 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. An exceedance of Instantaneous Maximum SWALs in Table 4 occurs when two or more analytical results within a reporting year exceeds the Instantaneous Maximum SWAL. The SWALs in Table 4 are not effluent limitations on the industrial storm water discharge. An exceedance of an action level does not constitute a violations 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. Aluminum Storm Water Action Level (section VI.C.2.a). Compliance with the storm water action level for aluminum can be demonstrated using either total or acid-soluble (inductively coupled plasma/atomic emission spectrometry or inductively coupled plasma/mass spectrometry) analysis methods, as supported by U.S. EPA's Ambient Water Quality Criteria for Aluminum document (EPA 440/5-86-008), or other standard methods that exclude aluminum silicate particles as approved by the Executive Officer.

C. 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 section VIII.A) 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 and RSW-002, 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 Canyon 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".

D. Whole Effluent Toxicity Effluent Limitations (section IV.A.1.b-c). The discharge is subject to determination of "Pass" or "Fail" from acute and chronic whole effluent toxicity tests using the Test of Significant Toxicity (TST) statistical t-test approach

described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1.

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

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

A test result that rejects this null hypothesis is reported as “Pass.” A test result that does not reject this null hypothesis is reported as “Fail.”

The relative “Percent Effect” at the discharge IWC is defined and reported as:

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

This is a t-test (formally Student’s t-Test), a statistical analysis comparing two sets of replicate observations, i.e., a control and IWC. The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC differs from the control, the test result is “Pass” or “Fail”). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.

ATTACHMENT A – DEFINITIONS

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

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

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

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

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

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

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

Best Management Practices (BMPs)
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
A period of time from the first of a month to the last day of the month (e.g., from January 1 to January 31, from April 1 to April 30, or from December 1 to December 31).

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

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

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

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

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

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

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

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

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.

First Flush
The First Flush is defined as the initial storm water runoff from the first two inches of rainfall from the log deck area after the time log deck sprinkling has ceased. The first flush collection may occur more than once in a wet season if the Discharger intermittently sprinkles logs with process wastewater from the log deck recycling pond or from the cogeneration operations during the wet season. The first flush is considered process wastewater and is prohibited from

being discharged to surface water. Attachment C includes a site map (Figure C-1) that identifies the log yard storm water area.

Industrial Storm Water
This Order regulates the discharge of industrial storm water from the storm water retention pond to Canyon Creek at Discharge Point SW-001. Industrial storm water includes post "first flush" storm water runoff from the log deck, storm water drainages from the sawmill and cogeneration facilities, which may also contain non-contact saw cooling water, kiln condensate, and spring water. Attachment C includes a site map (Figure C-1) that identifies the industrial storm water area.

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 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 from the sawmill and cogeneration operations shall include log deck sprinkling water (boiler/cooling tower blowdown, power plant floor drains, VSEP concentrate, sand filter backwash, wood fuel storage area leachate, ash pile leachate) and “first flush” storm water runoff from the log deck. Attachment C includes flow schematics for the sawmill and cogeneration operations during the dry season (Figure C-2) and the wet season (Figure C-3) that identify the process wastewater flows.

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 the 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.

Statistical Threshold Value (STV)
The STV for the bacteria receiving water limitation is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population.

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

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

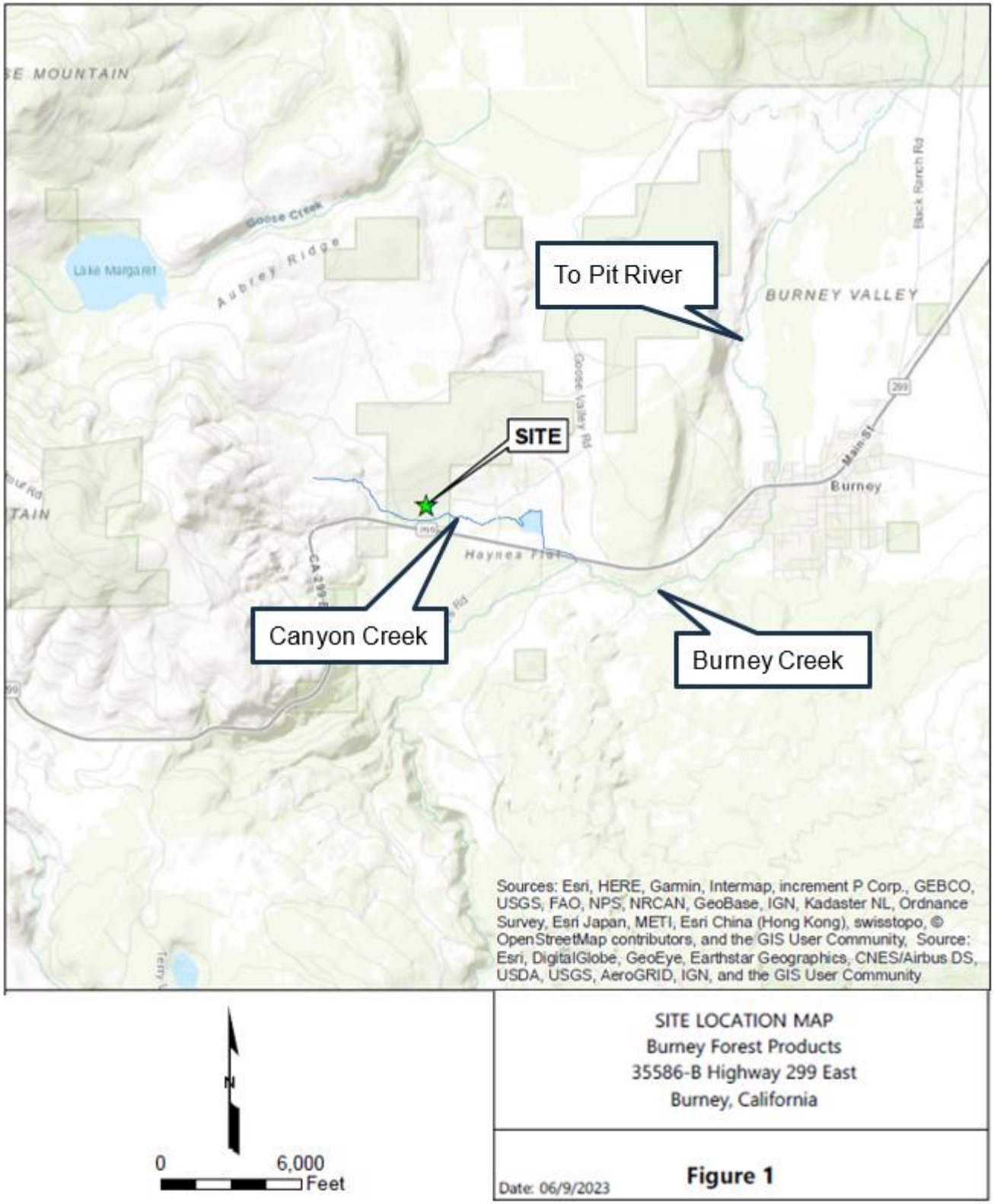
WET Maximum Daily Effluent Limitation (MDEL)
For the purposes of chronic and acute aquatic toxicity, an MDEL is an effluent limitation based on the outcome of the TST approach and the resulting percent effect at the IWC.

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

WET MMEL Compliance Tests

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

ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC

Figure C-1. Facility Site Map

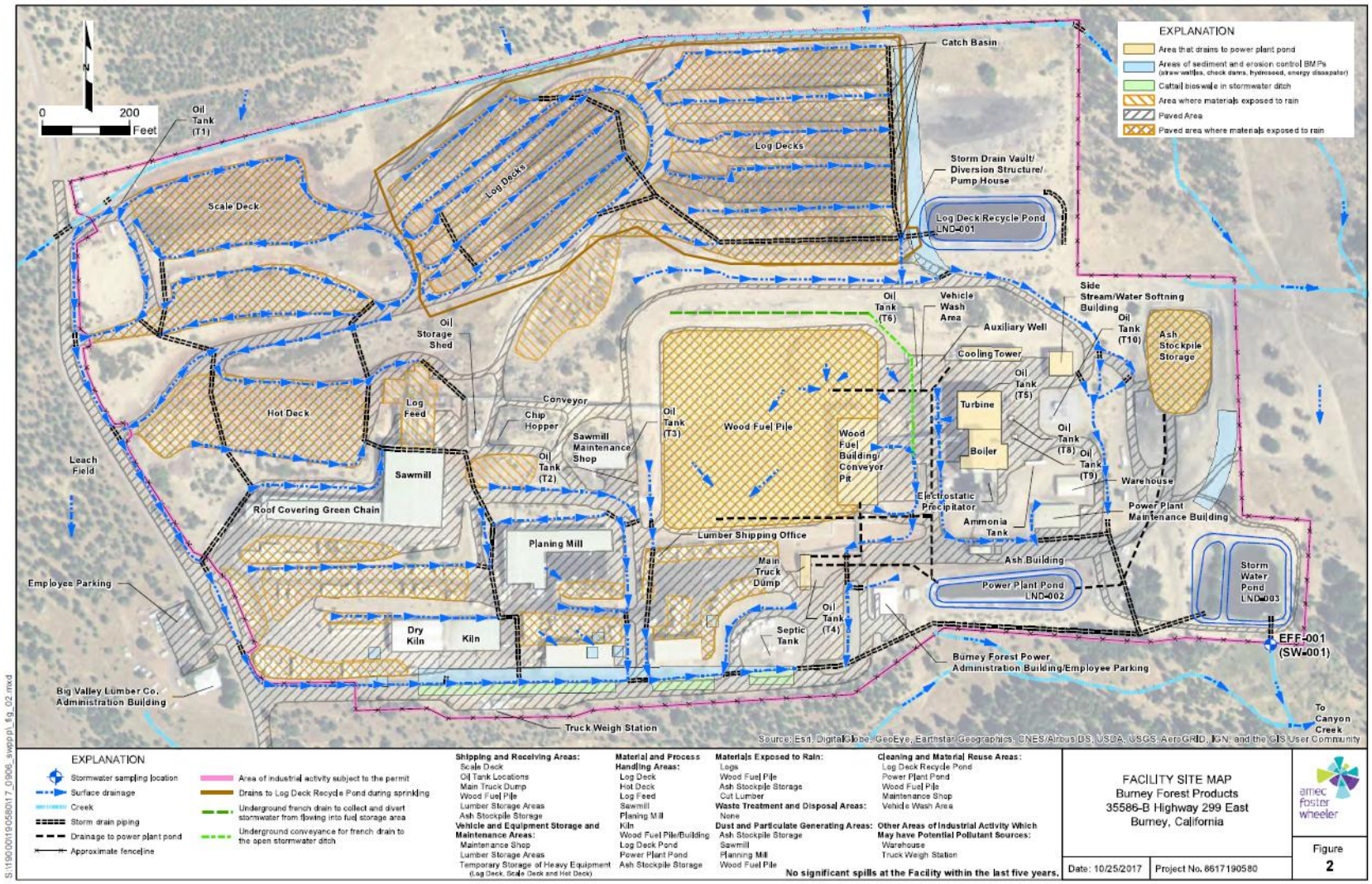


Figure C-2. June through September Flow Schematic

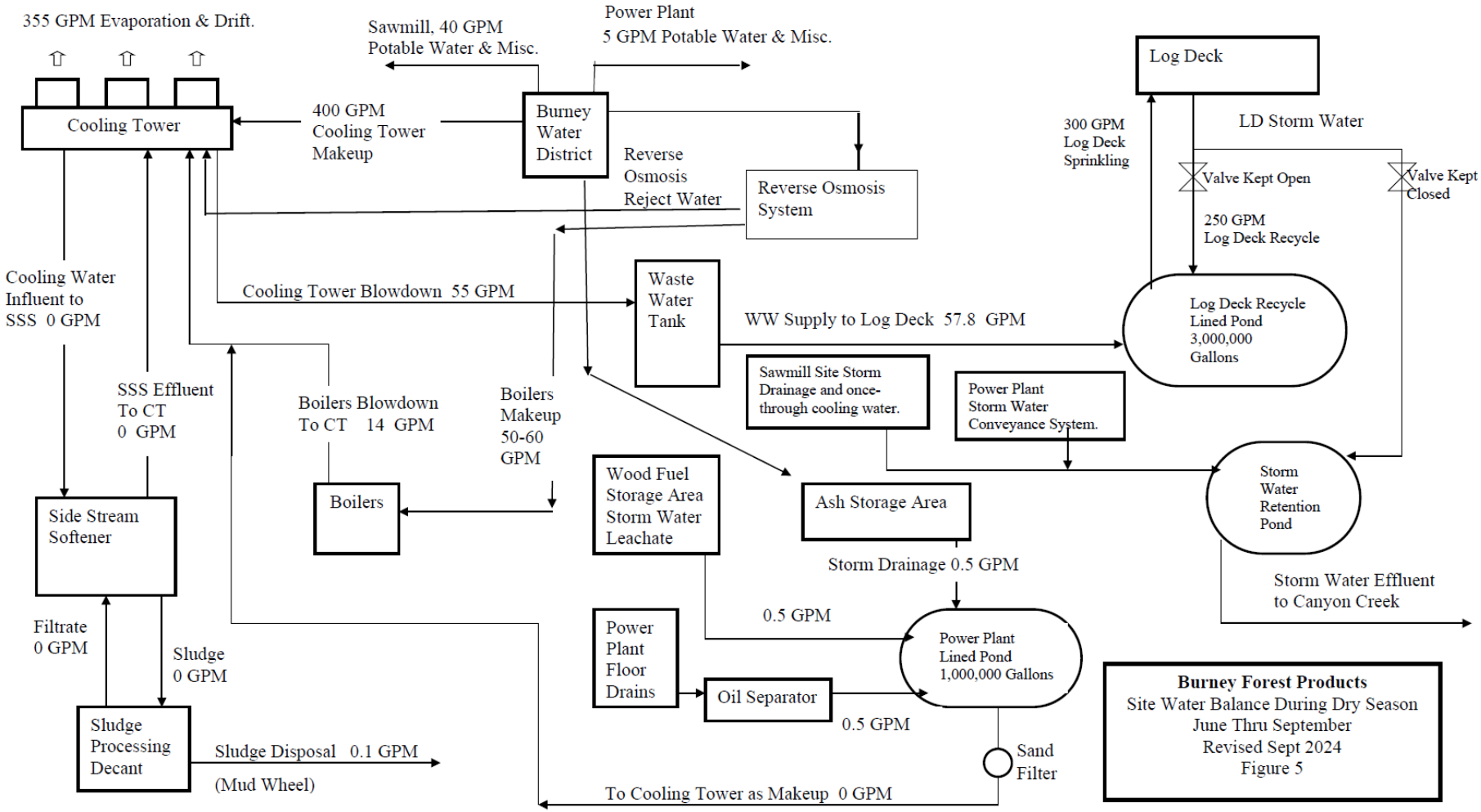
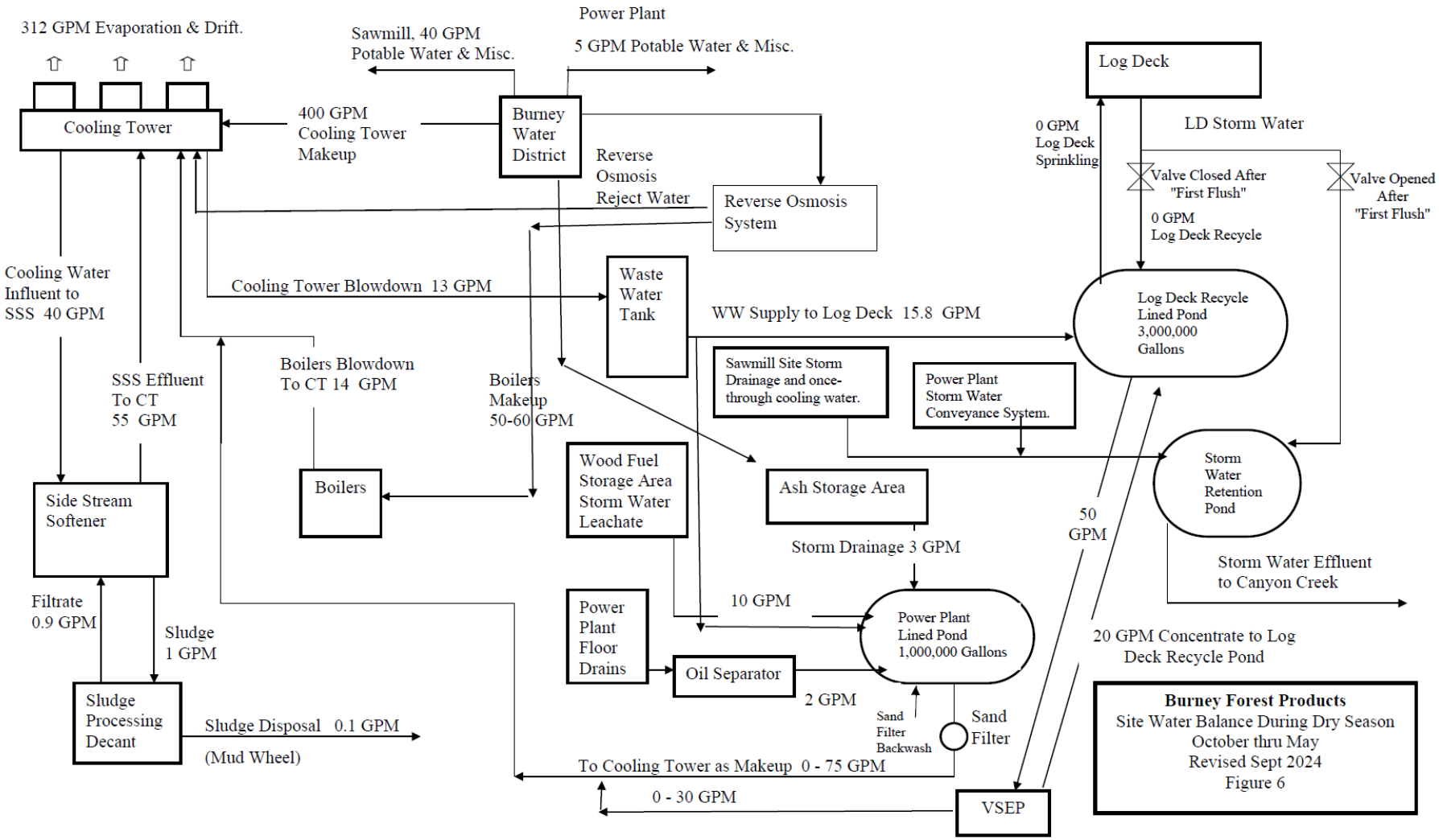


Figure C-3. October through May Flow Schematic



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 below (24-hour notice) (40 C.F.R. section 122.41(n)(3)(iii)); and

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

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

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

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

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

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

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

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

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

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

IV. STANDARD PROVISIONS – RECORDS

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

B. Records of monitoring information shall include:

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

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

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

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

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

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

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

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

B. Signatory and Certification Requirements

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

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

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

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

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

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

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

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

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

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

C. Monitoring Reports

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

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

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

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

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

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

   For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event

(combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather.

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

F. Planned Changes

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

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

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

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

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard

Provision – Reporting V.E above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. Part 127. The Central Valley Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. section 122.41(l)(7).)

I. Other Information

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

J. Initial Recipient for Electronic Reporting Data

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

VI. STANDARD PROVISIONS – ENFORCEMENT

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

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

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

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

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

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

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

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

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

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

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

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

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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Tables

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

I. GENERAL MONITORING PROVISIONS

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

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

C. Chemical, bacteriological, and bioassay analyses of any material required by this Order shall be conducted by a laboratory accredited for such analyses by the State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW; formerly the Department of Public Health), in accordance with the provision of Water Code section 13176. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. In the event an accredited laboratory is not available to the Discharger for any onsite field measurements such as pH, dissolved oxygen (DO), turbidity, 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. Part 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.

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
001	SW-001	**Storm Water.** A location where a representative sample of the industrial storm water (effluent) discharge from the storm water retention pond, Pond 3, can be obtained prior to discharge to Canyon Creek at Discharge Point 001. Latitude: 40.876389° - Longitude: -121.716667°
002	LND-001	**Log Deck Recycling Pond (Pond 1).** A location where a representative sample of wastewater in the log deck recycle pond can be collected. Latitude: 40.881111° - Longitude: -121.720833°

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
003	LND-002	**Power Plant Pond (Pond 2).** A location where a representative sample of wastewater in the power plant pond can be collected. Latitude: 40.878611° - Longitude: -121.720833°
--	LND-003	**Storm Water Retention Pond (Pond 3).** A location where a representative sample of storm water in the storm water retention pond can be collected. Latitude: 40.87862° - Longitude: -121.72069°
--	VLT-001	**Log Deck Vault.** A location where a representative sample of wastewater/storm water drainage into the concrete log deck vault can be collected. Latitude: 40.88102° - Longitude: -121.72099°
--	ASH-001	**Ash Storage Area.** A location where a representative sample of wood ash can be collected prior to disposal as agricultural soil amendment. Latitude: 40.88044° - Longitude: -121.71862°
--	RSW-001	**Upstream Receiving Water.** Canyon Creek, approximately 50 feet upstream of the confluence of Discharge Point 001 and Canyon Creek. Latitude: 40.87651° - Longitude: -121.71461°
	RSW-002	**Downstream Receiving Water.** Canyon Creek, approximately 50 feet downstream of the confluence of Discharge Point 001 and Canyon Creek. Latitude: 40.87736° - Longitude: -121.71385°

Table E-1 Note:

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

III. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location SW-001

1. The Discharger shall monitor industrial storm water (effluent) at SW-001 in accordance with Table E-2 and the testing requirements described in section IV.A.2 below:

Table E-2. Industrial Storm Water (Effluent) Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter	1/Day
Aluminum, Total Recoverable	µg/L	Grab	1/Month
Aluminum, Filtered	µg/L	Grab	1/Month
Chemical Oxygen Demand	mg/L	Grab	1/Month
Copper, Total Recoverable	µg/L	Grab	1/Month
Dissolved Organic Carbon	mg/L	Grab	1/Month
Dissolved Oxygen	mg/L	Grab	1/Week
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Week
Hardness, Total (as CaCO3)	mg/L	Grab	1/Month
Iron, Total Recoverable	µg/L	Grab	1/Month
Iron, Filtered	µg/L	Grab	1/Month
Manganese, Total Recoverable	µg/L	Grab	1/Month
Manganese, Filtered	µg/L	Grab	1/Month
Oil and Grease	mg/L	Grab	1/Month
pH	standard units	Grab	1/Week
Settleable Solids	ml/L	Grab	1/Month
Tannins and Lignins	mg/L	Grab	1/Month
Temperature	°C	Grab	1/Week
Total Dissolved Solids (TDS)	mg/L	Grab	1/Month
Total Suspended Solids (TSS)	mg/L	Grab	1/Month
Turbidity	NTU	Grab	1/Week
Zinc, Total Recoverable	µg/L	Grab	1/Month
Acute Whole Effluent Toxicity	(see Section V.B)	(see Section V.B)	(see Section V.B)
Chronic Whole Effluent Toxicity	(see Section V.C)	(see Section V.C)	(see Section V.C)
Effluent and Receiving Water Characterization	(see section IX.D)	(see section IX.D)	(see section IX.D)

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.** Samples shall be collected during the first 24-hours of the first discharge after the dry season and according to the sample frequency in Table E-2 thereafter. First discharge event may be limited to weekdays due to staffing and laboratory holding-time needs, and

therefore, at times, may exceed the 24-hour sampling requirement. First discharge events occurring on the weekend must be sampled no later than the following business day (e.g., Monday). Receiving water sampling shall be collected concurrently with industrial storm water (effluent) sampling, when applicable.

b. **Flow monitoring.** Flow monitoring is not required during non-business days.

c. **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. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 C.F.R. Part 136 allowed sample type.

d. **Handheld Field Meter.** A handheld field meter may be used for **dissolved oxygen**, **electrical conductivity**, **temperature, 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 Monitoring and Reporting Program shall be maintained at the Facility.

e. **Temperature, pH, hardness, and dissolved oxygen.** The industrial storm water (effluent) samples for temperature, pH, hardness, and dissolved oxygen shall be taken approximately at the time on the same date with receiving waters for these parameters.

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

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

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

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

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Toxicity Calendar Month, Quarter, and Year

1. **Toxicity Calendar Month.** The toxicity calendar month is defined as the period of time beginning on the day of the initiation of the routine toxicity monitoring to the day before the corresponding day of the next month if the corresponding day exists, or if not to the last day of the next month (e.g., from January 1 to January 31, or from June 15 to July 14, or from 31 January to February 28).

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

3. **Toxicity Calendar Year.** A toxicity calendar year is defined as twelve consecutive toxicity calendar months. For purposes of this Order, the toxicity calendar year will be the same as the storm water reporting year, which begins on 1 July (i.e., 1 July to 30 June), in years in which there are at least 15 days of discharge in at least one toxicity calendar quarter.

B. Acute Toxicity Testing.

The Discharger shall meet the following acute toxicity testing requirements:

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

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

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

4. **Sample Types.** The Discharger may use flow-through or static renewal testing. For static renewal testing, the samples shall be grab samples and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location SW-001.

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

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

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

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

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

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

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

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

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.** 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 instream waste concentration for the discharge in accordance with species and test methods in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA 821-R-02-013, 2002; Table IA, 40 C.F.R. Part 136).

6. **Dilution and Control Water.** Dilution water and control water shall be prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

7. **Test Failure.** If the effluent chronic toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method in EPA 821-R-02-013, the Discharger must conduct a Replacement Test as soon as possible, as specified in subsection C.8, below.

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 replace the routine monitoring, as applicable, for the toxicity calendar month in which the toxicity test that was not completed was required to be initiated, even if the new toxicity test is initiated in a subsequent month. The new toxicity test for routine monitoring, as applicable, for the toxicity calendar month in which the toxicity test that was not completed was required to be initiated. The new toxicity test required to be conducted due to the results of the new toxicity test shall not be used to substitute for any other required toxicity tests.

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

D. Quality Assurance and Additional Requirements. Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are below.

1. The discharge is subject to determination of "Pass" or "Fail" from an acute toxicity test and a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1.

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

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

   A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail."

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

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

   This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations, i.e., a control and IWC. The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control, the test result is "Pass" or "Fail"). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.

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

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

1. The valid toxicity test results for the TST statistical approach, reported as "Pass" or "Fail" and "Percent Effect" at the IWC for the discharge, the dates of sample collection and initiation of each toxicity test, all results for effluent parameters monitored concurrently with the toxicity test(s); and progress reports on TRE investigations.

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

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

G. Most Sensitive Species Screening. – Not Applicable.

H. Toxicity Reduction Evaluations (TRE)

1. **TRE Implementation.** The Discharger is required to initiate a TRE when there is any combination of two or more MDEL or MMEL violations within a single toxicity calendar month or within two successive toxicity calendar months. In addition, if other information indicates toxicity (e.g., results of additional monitoring, results of monitoring at a higher concentration than the IWC, fish kills, intermittent recurring toxicity), the Central Valley Water Board may require a TRE. A TRE may also be required when there is no effluent available to complete a routine monitoring test or MMEL compliance test.

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

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

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

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

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

2. **TRE Work Plan.** The Discharger shall submit to the Central Valley Water Board a TRE Work Plan for approval by the Executive Officer by the due date in the Technical Reports Table E-9. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The TRE Work Plan shall outline the procedures for identifying the source(s) of and reducing or eliminating effluent toxicity. The TRE Work Plan must be of adequate detail to allow the Discharger to immediately initiate a TRE and shall be developed in accordance with U.S. EPA guidance as discussed below.

a. Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833-B-99/002, August 1999.

b. Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (TREs), EPA/600/2-88/070, April 1989.

c. Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures, Second Edition, EPA 600/6-91/003, February 1991.

d. Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, EPA/600/6-91/005F, May 1992.

e. Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity, Second Edition, EPA/600/R-92/080, September 1993.

f. Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity, Second Edition, EPA 600/R-92/081, September 1993.

g. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, EPA-821-R-02-012, October 2002.

h. 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.

i. Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

A. Monitoring Locations LND-001, LND-002, LND-003.

1. The Discharger shall monitor the log deck recycle pond (Pond 1), the power plant pond (Pond 2), and the storm water retention pond (Pond 3) at LND-001, LND-002, and LND-003, respectively, in accordance with Table E-3 below:

Table E-3 Pond Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Freeboard	Feet	Visual	1/Week

2. The Discharger shall inspect the log deck recycle pond, power plant pond, and storm water retention pond on a regular basis to check for failure and/or leakage.

3. 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.

   Notes on pond conditions shall be summarized in the monitoring report.

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location RSW-001 and RSW-002

1. The Discharger shall monitor Canyon Creek at Monitoring Locations RSW-001 and RSW-002 in accordance with Table E-4 and the testing requirements described in section VIII.A.2 below:

Table E-4. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	cfs	Calculation	1/Week
pH	SU	Grab	1/Week
Aluminum, Total Recoverable	µg/L	Grab	1/Month
Aluminum, Filtered	µg/L	Grab	1/Month
Copper, Total Recoverable	µg/L	Grab	1/Month
Copper, Dissolved	µg/L	Grab	1/Month
Dissolved Organic Carbon	mg/L	Grab	1/Month
Dissolved Oxygen	mg/L	Grab	1/Week
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Week
Hardness, Total (as CaCO3)	mg/L	Grab	1/Month
Iron, Total Recoverable	µg/L	Grab	1/Month
Iron, Filtered	µg/L	Grab	1/Month
Manganese, Filtered	µg/L	Grab	1/Month
Tannins and Lignins	mg/L	Grab	1/Month

Parameter	Units	Sample Type	Minimum Sampling Frequency
Temperature	°C	Grab	1/Week
Turbidity	NTU	Grab	1/Week
Zinc, Total Recoverable	µg/L	Grab	1/Month
Zinc, Dissolved	µg/L	Grab	1/Month
Priority Pollutants and Other Constituents of Concern	(see Section IX.D)	(see Section IX.D)	(see Section IX.D)

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**. Sampling shall occur during periods of discharge from the storm water retention basin when a hydraulic connectivity between the storm water retention basin discharge and the receiving water exists. First discharge event sampling may be limited to weekdays due to staffing and laboratory holding-time needs, and therefore, at times may exceed the 24-hour sampling requirement. First discharge events occurring on the weekend must be sampled no later than the following business day (e.g., Monday). Receiving water sampling shall be concurrent with industrial storm water (effluent) sampling, when applicable.

   b. **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. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 C.F.R. Part 136 allowed sample type.

   c. **Handheld Field Meter.** A handheld field meter may be used for **dissolved oxygen**, **electrical conductivity**, **temperature, 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 Monitoring and Reporting Program 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 at the time on the same date as the industrial storm water (effluent) samples for these parameters.

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

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

h. **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 Canyon Creek. 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.

IX. OTHER MONITORING REQUIREMENTS

A. Log Deck Drainage Monitoring

1. **Monitoring Location VLT-001.** Upon cessation of sprinkling logs on the log yard until sprinkling of the logs resumes, the Discharger shall monitor the Log

Deck Drainage at Monitoring Location VLT-001 in accordance with Table E-5 and the testing requirements described in section IX.A.2 below:

Table E-5. Log Deck Drainage Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Precipitation	Inches (±0.1)	Visual (Cumulative)	1/Day
Electrical Conductivity @ 25°C	µmhos/cm	Grab	3/Week
pH	SU	Grab	3/Week
Temperature	°C	Grab	3/Week
Turbidity	NTU	Grab	3/Week

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.** 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. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 C.F.R. Part 136 allowed sample type.

   b. **Handheld Field Meter.** A handheld field meter may be used for **electrical conductivity**, **temperature, 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 Monitoring and Reporting Program shall be maintained at the Facility.

   c. **Daily Precipitation (24-hour period cumulative).** Upon approval by the Executive Officer, precipitation data may be obtained from monitoring station(s) not located at the Facility, as long as the alternate precipitation data is representative of the rainfall experienced at the Facility.

B. Ash Solids Monitoring

1. **Monitoring Location ASH-001.** The Discharger shall monitor the fly and bottom ash at ASH-001 in accordance with Table E-6 and the testing requirements described in section IX.B.2. below.

Table E-6. Ash Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling
Ash Volume Generated	Dry-tons	Continuous	1/Month
Ash Volume Stored at Facility	Dry-tons	Continuous	1/Month
Ash Volume Removed	Dry-tons	Continuous	1/Month
Ash Liming Capacity	Equiv. % CaCO3	Composite	2/Year
Ash Total Phosphorus	mg/kg	Composite	1/Year
Moisture Content	% Moisture	Composite	1/Year
pH	SU	Composite	1/Year
CAM 17 Metals	mg/kg	Composite	1/Year
2,3,7,8-TCDD-Equivalents	pg/g	Composite	1/Year

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.** 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. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 C.F.R. Part 136 allowed sample type.

   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 US 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 CCR Title 22 testing procedures.

   e. **Dioxin Equivalents**. Dioxin equivalents, also known as 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 fly ash and bottom ash removed from the Facility and submit an annual SMR by the due date in the Technical Reports Table E-9:

   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 for 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. Cooling Tower Solids Monitoring

1. The Discharger shall record on a monthly basis the following information about cooling tower sludge removed from the Facility, and submit an annual SMR by the due date in the Technical Reports Table E-9:

   a. Annual production of cooling tower sludge;

   b. Volume of material stored at the Facility; and

   c. Disposal location.

D. Effluent and Receiving Water Characterization

1. Monitoring Frequency

   a. **Industrial Storm Water (Effluent) Sampling.** Samples shall be collected from the industrial storm water (effluent) (Monitoring Location SW-001) once during the permit term, specifically, **once during the first discharge event of the 2026/2027 wet season**, which begins on 1 October 2026.

   b. **Receiving Water Sampling.** Samples shall be collected from the upstream receiving water (Monitoring Location RSW-001) once during the permit term, specifically, **once during the first discharge event of the 2026/2027 wet season**, which begins on 1 October 2026.

2. **Analytical Methods.** Constituents shall be collected and analyzed consistent with the Discharger's Analytical Methods Report (MRP, X.D.1) 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 self-monitoring reports. Each individual monitoring event shall provide representative sample results for the effluent and upstream receiving water.

3. **Analytical Methods Report Certification.** Prior to beginning the Effluent and Receiving Water Characterization monitoring, the Discharger shall provide a certification acknowledging the scheduled start date of the Effluent and Receiving Water Characterization monitoring and confirming that samples will be collected and analyzed as described in the previously submitted Analytical Methods Report. If there are changes to the previously submitted Analytical Methods Report, the Discharger shall outline those changes. A one-page certification form will be provided by Central Valley Water Board staff with the permit's Notice of Adoption that the Discharger can use to satisfy this requirement. The certification form shall be submitted electronically via CIWQS submittal by the due date in the Technical Reports Table E-9.

4. The Discharger shall conduct effluent and receiving water characterization monitoring in accordance with Table E-7 and the testing requirements described in section IX.E.5 below.

Table E-7. 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

CTR Number	Volatile Organic Parameters	CAS Number	Units	Effluent Sample Type
94	Naphthalene	91-20-3	µg/L	Grab
38	Tetrachloroethylene (PCE)	127-18-4	µg/L	Grab
39	Toluene	108-88-3	µg/L	Grab
40	trans-1,2-Dichloroethylene	156-60-5	µg/L	Grab
43	Trichloroethylene (TCE)	79-01-6	µg/L	Grab
44	Vinyl Chloride	75-01-4	µg/L	Grab
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

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

CTR Number	Inorganic Parameters	CAS Number	Units	Effluent Sample Type
5	Chromium, Total	7440-47-3	µg/L	Grab
6	Copper, Total	7440-50-8	µg/L	Grab
NL	Iron, Total	7439-89-6	µg/L	Grab
7	Lead, Total	7439-92-1	µg/L	Grab
8	Mercury, Total	7439-97-6	µg/L	Grab
NL	Mercury, Methyl	22967-92-6	µg/L	Grab
NL	Manganese, Total	7439-96-5	µg/L	Grab
9	Nickel, Total	7440-02-0	µg/L	Grab
10	Selenium, Total	7782-49-2	µg/L	Grab
11	Silver, Total	7440-22-4	µg/L	Grab
12	Thallium, Total	7440-28-0	µg/L	Grab
13	Zinc, Total	7440-66-6	µg/L	Grab

NON-METALS/MINERALS

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

PESTICIDES/PCBs/DIOXINS

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

NON-CONVENTIONAL PARAMETERS

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

NUTRIENTS

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

5. **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. **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, with the exception of hardness which shall be sampled concurrently with the hardness-dependent metals (cadmium, chromium III, lead, nickel, silver, and zinc). In addition, temperature and pH samples must be collected concurrently with ammonia.

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-7.

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

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

h. **TCDD-Dioxin Congener Equivalents** shall include all 17 congeners of 2,3,7,8 TCDD and 2,3,7,8-TCDF that exhibit toxic effects similar to those of 2,3,7,8-TCDD (dioxin) as listed in section 3 of the SIP.

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

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

Table E-8. 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
2/Year	Permit effective date	1 January through 30 June 1 July through 31 December	1 August 1 February of following year
1/Year	Permit effective date	1 January through 31 December	1 February of following year

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

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

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

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

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

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

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

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

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

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

6. **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 Storm Water Action Levels.** For constituents with storm water action levels specified as “annual average” (aluminum, chemical oxygen demand, electrical conductivity, oil and grease, settleable solids, 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 industrial storm water (effluent) (SW-001) and the receiving water (RSW-001 and RSW-002).

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.18.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.

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

C. Discharge Monitoring Reports (DMRs)

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

D. Other Reports

1. **Analytical Methods Report.** The Discharger shall complete and submit an Analytical Methods Report, electronically via CIWQS submittal, by the due date shown in the Technical Reports Table E-9. The Analytical Methods Report shall include the following for each constituent to be monitored in accordance with this Order: 1) applicable water quality objective, 2) reporting level (RL), 3) method detection limit (MDL), and 4) analytical method. The analytical methods shall be sufficiently sensitive with RLs consistent with the SSM Rule per 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv), and with the Minimum Levels (MLs) in the SIP, Appendix 4. The "Reporting Level or RL" is synonymous with the "Method Minimum Level" described in the SSM Rule. If an RL is not less than or equal to the applicable water quality objective for a constituent, the Discharger shall explain how the proposed analytical method complies with the SSM Rule as outlined above in Attachment E, section I.F. Central Valley Water Board staff will provide a tool with the permit's Notice of Adoption to assist the Discharger in completing this requirement. The tool will include the constituents and associated applicable water quality objectives to be included in the Analytical Methods Report.

2. **Annual Operations Report.** The Discharger shall submit a written report to the Central Valley Water Board, electronically via CIWQS submittal, containing the following by the due date in the Technical Reports Table E-9:

    a. The names, certificate grades, and general responsibilities of all persons employed 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 E-9:

   a. Report of Waste Discharge (Form 200);

   b. NPDES Form 1 (not needed if submitting Form 2A);

   c. NPDES Form 2C;

   d. NPDES Form 2F;

   e. **Storm Water Pollution Prevention Plan (SWPPP) and Salinity Evaluation and Minimization Plan (SEMP).** The Discharger shall evaluate the effectiveness of the SWPPP and SEMP along with BMPs implemented at the Facility at reducing pollutants in the industrial storm water discharge and provide a summary with the Report of Waste Discharge.

4. **Technical Report Submittals.** This Order includes requirements to submit a ROWD, special study technical reports, progress reports, and other reports identified in the MRP (hereafter referred to collectively as "technical reports"). The Technical Reports Table E-9 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-9. 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 March 2029	ROWD
2	Analytical Methods Report	31 May 2025	MRP X.D.1
3	Analytical Methods Report Certification	1 July 2026	MRP IX.D.3
4	Annual Operations Report	1 February 2026	MRP X.D.2
5	Annual Operations Report	1 February 2027	MRP X.D.2
6	Annual Operations Report	1 February 2028	MRP X.D.2
7	Annual Operations Report	1 February 2029	MRP X.D.2
8	Annual Operations Report	1 February 2030	MRP X.D.2
Intentionally left blank	Other Reports	Intentionally left blank	Intentionally left blank

Report #	Technical Report	Due Date	CIWQS Report Name
9	Best Management Practice (BMP) Improvement Evaluation	Within 60 days following storm water action level exceedance or receiving water violation	WDR VI.C.2.a
10	Leak Detection Test Work Plan	1 October 2026	WDR VI.C.2.b
11	Leak Detection Report	31 March 2029	WDR VI.C.2.b
12	Toxicity Reduction Evaluation (TRE) Work Plan	30 July 2025	WDR VI.C.2.c
13	Storm Water Pollution Prevention Plan (SWPPP)	1 October 2025	WDR VI.C.3.b
14	Ash and Cooling Tower Solids Management Plan	1 October 2025	WDR VI.C.6.a
15	Annual Ash Monitoring Report	1 February 2026	MRP IX.B
16	Annual Ash Monitoring Report	1 February 2027	MRP IX.B
17	Annual Ash Monitoring Report	1 February 2028	MRP IX.B
18	Annual Ash Monitoring Report	1 February 2029	MRP IX.B
19	Annual Ash Monitoring Report	1 February 2030	MRP IX.B
20	Cooling Tower Sludge Disposal Report	1 February 2026	MRP IX.C
21	Cooling Tower Sludge Disposal Report	1 February 2027	MRP IX.C
22	Cooling Tower Sludge Disposal Report	1 February 2028	MRP IX.C
23	Cooling Tower Sludge Disposal Report	1 February 2029	MRP IX.C
24	Cooling Tower Sludge Disposal Report	1 February 2030	MRP IX.C

ATTACHMENT F – FACT SHEET

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Tables

ATTACHMENT F – FACT SHEET

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

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1 Facility Information

Waste Discharge ID:	5A452030002
CIWQS Facility Place ID:	210849
Discharger:	Burney Forest Products, a joint venture, Shasta Green, Inc., and Sierra Pacific Industries
Name of Facility:	Burney Forest Products
Facility Address:	35586-B Highway 299 E
Facility City, State Zip:	Burney, CA 96013
Facility County:	Shasta County
Facility Contact, Title and Phone Number:	Bruce Hornbuckle, Plant Manager, (530) 335-5023 ext. 102
Authorized Person to Sign and Submit Reports:	Bruce Hornbuckle, BFP Plant Manager, (530) 335-5023 ext. 102 Paul Woods, Shasta Green Sawmill Operations Manager (530) 335-4924
Mailing Address:	Same as Facility Address
Billing Address:	Same as Facility Address
Type of Facility:	Electric Services (SIC 4911) and Sawmill and Planing mill (SIC 2421)
Major or Minor Facility:	Minor
Threat to Water Quality:	2
Complexity:	A
Pretreatment Program:	Not Applicable
Recycling Requirements:	Not Applicable

Facility Permitted Flow:	Not Applicable
Facility Design Flow:	22.6 MGD
Watershed:	Pit River Hydrologic Unit (526.00)
Receiving Water:	Canyon Creek
Receiving Water Type:	Inland Surface Water

A. Burney Forest Products, a joint venture, is the operator of a biomass fired cogeneration power plant owned by Olympus Power, LLC. Sierra Pacific Industries owns the property at 35586-B Highway 299 E on which the Facility is located. Burney Forest Products subleases a portion of the property to Shasta Green, Inc., who owns and operates a sawmill/planing mill. Both the cogeneration power plant and sawmill/planing mill are hereinafter designated as the Burney Forest Products Facility (Facility). Together Burney Forest Products, a joint venture, Shasta Green, Inc., and Sierra Pacific Industries are hereinafter referred to as the Discharger.

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. Sierra Pacific Industries, as owner of the property at which a surface water discharge occurs, is responsible for guaranteeing compliance with this Order. Burney Forest Products and Shasta Green Inc. retains primary responsibility for compliance with this Order, including the day-to-day operations and monitoring. Enforcement actions will be taken against Sierra Pacific Industries only in an event that enforcement actions against the Burney Forest Products and Shasta Green Inc. are ineffective.

C. The Facility discharges industrial storm water to Canyon Creek, a water of the United States, tributary to Burney Creek within the Pit River Hydrologic Unit (526.00). The Discharger was previously regulated by Order R5-2019-0048 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0082490 adopted on 7 June 2019 and expired on 31 July 2024. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

D. The Discharger filed a Report of Waste Discharge (ROWD) and submitted an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit on 5 July 2023. The application was deemed complete on 20 September 2023. A site visit was conducted on 17 October 2024, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.

E. Regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 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 (CCR), title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

II. FACILITY DESCRIPTION

The Facility is comprised of a sawmill and cogeneration power plant located 2.3 miles west of Burney, in the intermountain region of eastern Shasta County. The overall property is approximately 250 acres, with approximately 80 acres used for industrial purposes: 4.5 acres are covered by buildings, 51.5 acres are used for log operations,10 acres of open vegetation, and 14 acres of unpaved industrial operations.

Sawmill: The sawmill operation consists of log scaling, wet and dry storage, mechanical log barking, sawmill, planing mill, lumber drying kilns, lumber storage and shipping areas, aboveground petroleum storage areas, equipment fueling and maintenance, paved and unpaved roadways, and an office. Steam generated from the cogeneration plant is used for the lumber drying operations. The sawmill can process approximately 258,000 tons of logs per year, producing approximately 70 million board feet of dimensional lumber products, and approximately 20 percent of the fuel needed to operate the cogeneration plant.

Wastes generated from the sawmill operations include runoff from log storage areas, wood waste, saw cooling water, kiln condensate, waste petroleum products, and storm water runoff. Wood waste from the sawmill is delivered to the cogeneration power plant by conveyor.

Cogeneration Plant: The cogeneration plant consists of a wood fuel storage area, two biomass-fired (wood fuel) boilers, a steam turbine, an ammonia storage and delivery system, aboveground petroleum storage, a Reverse Osmosis System (ROS) to treat boiler feed water, a Vibratory Shear Enhanced Processing (VSEP) unit and a sand filter to treat cooling tower makeup water, a cooling tower, ash storage, and paved and unpaved roadways.

The primary fuel source for the cogeneration plant is wood waste from the sawmill and wood waste from off-site sources (e.g., forest derived wood including woodchips from logging operations). Natural gas is used as a supplementary fuel for startup and flame stabilization for the cogeneration plant’s boilers. The Discharger has submitted a list of chemicals used to treat the cogeneration plant’s water and to maintain the boiler and cooling tower.

Wastes generated from the cogeneration plant include wood fuel storage pile leachate, ROS reject water, VSEP concentrate, filter backwash, cooling tower blowdown, boiler blowdown, cooling tower sludge and filtrate treatment, fly and bottom ash, used petroleum products, sewage, and storm water runoff. The bottom ash is transported off-site to a manufacture for reuse; and the fly ash is transported to private agricultural lands for use

as soil amendment or to a manufacturer for reuse. The cooling tower sludge is filtered, and the cake is disposed of at a Class III landfill.

Ponds: The Facility has two wastewater management units, a 3-million gallon (MG) lined log deck recycle pond and a 1-MG lined power plant pond, and a separate 3.6-acre-foot unlined storm water retention and infiltration pond. Both the log deck recycle pond and the power plant pond are single lined with 60-millimeter HPDE geosynthetic membrane liners. The synthetically-lined ponds do not meet the current construction requirements specified in Title 27 of the California Code of Regulations (CCR). The log deck liner was replaced in March 2018 and the power plant pond liner in October 2024. The total annual wastewater volume discharged to the two lined wastewater ponds (i.e., the log deck recycle pond and the powerplant pond) varies between 150-MG to 200-MG.

Log Deck Recycle Pond: During the September 2013 liner repair, a new 4-inch perforated PVC drain pipe was installed beneath the liner of the pond east side wall replacing the existing non-functional underdrain system. An additional 4-inch perforated PVC drain pipe was installed beneath the liner on the west side wall during the March 2018 liner replacement. Both drain pipes may be used to siphon groundwater from underneath the liner to either an internal surface drainage ditch or to the cooling tower for evaporation.

The cogeneration plant discharges the following wastewater to the log deck recycle pond: ROS reject water, cooling tower blowdown, boiler blowdown, VSEP concentrate. During the dry season, continuous cogeneration wastewater discharges from the wastewater tank to the log deck vault box for log deck sprinkling operations. The log deck sprinkling runoff drains back into the log deck vault box (i.e., the wastewater tank, vault box, and sprinkler system operate as a closed loop during the dry season). At the start of the wet season, the initial flush of storm water runoff from the log yard (i.e., comingled wastewater and storm water) is captured in the log deck vault box and discharged to the log deck recycle pond. After the first flush is captured in the log deck recycle pond, the vault box is closed to the log deck recycle pond and opened to the storm water retention pond, where subsequent log deck storm water runoff is discharged. Discharges to surface waters from the log deck recycle pond are prohibited.

Power Plant Pond: The power plant pond receives wastewater from the cogeneration plant floor drains after treatment with an oil/water separator, sand filter backwash, leachate from the wood fuel storage pile, and storm water runoff from the wood fuel storage pile and the fly/bottom ash storage areas. In case of emergency, wastewater can be pumped from the power plant pond to the log deck recycle pond. Wastewater from the log deck recycle pond can also be discharged to the power plant pond. If the power plant pond or log deck recycle pond reach their capacity, the wastewater is trucked offsite for disposal. Discharges to surface waters from the power plant pond are prohibited.

Storm Water Retention Pond: The storm water retention pond receives storm water runoff from both the sawmill drainage area and cogeneration plant drainage

area, which may contain non-contact saw cooling water, kiln condensate, wood waste, and sediment. In addition, after the collection of the first flush wastewater in the log deck recycle pond, subsequent storm water runoff from the log deck area is discharged to the storm water retention pond. When the storm water retention pond storage capacity is reached, storm water discharges to Canyon Creek, a tributary of Burney Creek, at Discharge Point 001. The annual volume of storm water discharge varies between 300-MG to 700-MG. The design daily average flow capacity of the Facility is 22.6 MGD for industrial storm water discharge at Discharge Point 001.

Emergency storage: In order to store water in the event of an emergency, the Discharger has the ability to contract with a supplier to provide five (5) on-site baker tanks, each having a 21,000 gallon capacity.

Domestic sewage from the Facility's office buildings is treated on-site by a 17,900 gallon septic tank and leach field, which is permitted through Shasta County; the discharge of domestic waste on-site is not regulated by this Order.

A. Description of Storm Water, Wastewater, and Waste Solids Treatment and Controls

Storm water: Storm water at the Facility is captured through a series of ditches and conveyed, by gravity, to the storm water retention pond. The storm water retention pond is not lined in order to allow storm water infiltration. The storm water retention pond has a capacity of 1.173-MG and is divided into two sections with a rock barrier and invert siphon from the smaller inlet section to the larger discharge section. The inlet section of the storm water retention pond is designed to retain bark and other floatable materials. In October 2020, the inlet section was improved with the installation of a turbidity curtain to promote the additional settling of suspended solids. The discharge section of the storm water retention pond is designed to allow suspended solids to settle, and it has two discharge weirs; a floatable weir and a stationary weir (spillway), both discharge at Discharge Point 001. During most storm events, storm water enters the retention pond until sufficient settling has occurred with discharge through the floating weir only. The stationary weir is a safety discharge, which protects the storm water retention pond from overflowing its containment.

When the wet season begins, the log deck sprinklers are shut off. Prior to allowing storm water runoff from the paved log deck area to enter the storm water retention pond, storm water runoff from a minimum 2-inches of rainfall is directed to the log deck recycle pond. The practice of collecting the first 2-inches of log deck rainfall runoff in the log deck recycle pond is considered a BMP to reduce pollutants in the storm water discharge to surface waters. The 2-inches of rainfall that is comingled with residual sprinkler wastewater on the paved log decks is referred to as the "first flush." The "first flush" collection may occur more than once in a wet season if the Discharger intermittently sprinkles logs with process wastewater during the wet season. After capturing the "first flush" from the paved log decks, the control valve to the log deck recycle pond is closed and the storm water from the log deck is

screened and directed to the storm water retention pond. Storm water runoff from the sawmill and cogeneration plant is also directed to the storm water retention pond, except for the leachate and storm water from the wood fuel, petroleum storage, and ash storage areas, which are directed to the power plant pond.

Wastewater: The log deck recycle pond and power plant pond are used to store wastewater and storm water flows from select industrial portions of the Facility. Wastewater can be transferred between the log deck recycle pond and power plant pond to ensure both ponds integrity are maintained. Wastewater is recirculated in both the log deck recycle pond and the power plant ponds and both ponds are equipped with spray nozzles to aerate the pond water to minimize potential odors.

The wastewater that is collected in the log deck recycle pond and the power plant pond can be treated with either the VSEP unit and/or the new sand filter for reuse as makeup water for the cooling tower. The cooling tower can use up to 400 gallons per minute (gpm) of makeup cooling water. The VSEP is capable of producing 30 gpm of makeup water, and the sand filter is capable of producing 75 gpm of makeup water. Increasing the recycled water portion of the cooling tower makeup water provides additional operational flexibility to ensure both wastewater pond's integrity can be maintained. The VSEP condensate is discharged to the log deck recycle pond and the sand filter backwash is discharged to the power plant pond.

Supply water from the City of Burney is treated by a ROS for use as boiler feed water. The ROS reject water is discharged to the log deck pond via the wastewater tank.

Waste Solids: Cooling water is recycled which results in increased total dissolved solids. A side stream water softener treatment system was installed to remove calcium, magnesium, and silica from the water for reuse at the cogeneration plant. Precipitating agents and flocculants are added to the blowdown water. The treated water is then recycled through the cooling tower, while the sludge-laden slurry is filtered and removed for disposal. Cooling tower treatment sludge is disposed of at a Class III landfill.

After ash leaves the boilers, it is stored in an open concrete enclosure where city water is used to sprinkle the ash for fugitive dust and fire control. Storm water that falls into the ash management storage area is collected and transferred to the power plant pond for reuse or evaporation. No storm water from the ash storage area is discharged to surface water. Once sufficiently cooled the fly ash is either used for soil amendment or transported to a manufacturer for recycling. Bottom ash, which is comprised entirely of mineral matter, is disposed off-site.

B. Discharge Points and Receiving Waters

1. The Facility is located in section 23, T35N, R2E, MDB&M, as shown in Attachment B, a part of this Order.

2. Settled industrial storm water is discharged at Discharge Point 001 to Canyon Creek, a water of the United States and a tributary to Burney Creek within the Pit River Hydrologic Unit (526.00) at a point latitude 40° 52’ 35” N and longitude 121° 43’ 00” W.

3. Process wastewater from the sawmill and cogeneration operations is discharged at Discharge Point 002 to the 60-mm HDPE lined log deck recycle pond at a point latitude 40° 52’ 52” N and longitude 121° 43’ 15” W.

4. Process wastewater from the sawmill and cogeneration operations is discharged at Discharge Point 003 to the 60-mm HDPE lined power plant pond at a point latitude 40° 52’ 43” N and longitude 121° 43’ 15” W.

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

1. **Effluent Limitations.** The Effluent limitations contained in Order R5-2019-0048 for industrial storm water discharges from Discharge Point 001 (Monitoring Location SW-001) and representative monitoring data from December 2019 – June 2024 are as follows in Table F-2 below:

Table F-2 Historic Storm Water Effluent Limitations and Monitoring Data

Parameter	Units	Historic Effluent Limitations	Highest Daily Discharge
pH	SU	Instantaneous Max 9.0 Instantaneous Min 6.0	8.98 (02/15/2022) 6.00 (05/26/2023)
Acute Toxicity	% Survival	Minimum % Survival 70 Median % Survival 90	60 (12/17/2020) 100 (01/11/2021)

Table F-2 Notes:

1. Minimum percent survival for any one bioassay.
2. Median percent survival of three consecutive acute bioassays: 60% on 12/17/2020, 100% on 01/11/2021, and 100% on 02/17/2021.

2. **Storm Water Action Levels.** In addition to the parameters with effluent limitations, the industrial storm water discharge was monitored for additional constituents of concern during the term of Order R5-2019-0048. Representative monitoring data from December 2019 through June 2024, and storm water action levels (SWALs) have been included for reference are as follows in Table F-3 below:

Table F-3 Historic Industrial Storm Water Monitoring Data

Parameter	Units	Historic SWAL	Highest Average Annual Discharge	Highest Daily Discharge
Flow	MGD	--	6.59 (2024)	21.76 (01/09/2023)
Aluminum, Total Recoverable	µg/L	750	2,101 (2024)	6,700 (01/05/2021)
Aluminum, Filtered	µg/L	--	530 (2020)	1080 (04/05/2023)
Chemical Oxygen Demand	mg/L	120	127 (2021)	258 (12/17/2020)
Copper, Total	µg/L	--	--	6.8 (02/17/2021)
Dissolved Organic Carbon	mg/L	--	24.2 (2020)	54.3 (12/17/2020)
Electrical Conductivity	µmhos/cm	700	559 (2021)	885 (01/28/2021)
Hardness, Total as CaCO3	mg/L	--	Min: 71.8 (04/18/2022)	Max: 155 (01/05/2021)
Iron, Total Recoverable	µg/L	1,000	1,857 (2024)	5,520 (01/05/2021)
Iron, Filtered	µg/L	--	751 (2020)	1080 (04/02/2020)
Manganese, Total Recoverable	µg/L	1,000	336 (2020)	615 (04/18/2022)
Manganese, Filtered	µg/L	--	263 (2020)	510 (05/21/2020)
Oil and Grease (O&G)	mg/L	--	9.0 (2021)	13.2 (10/25/2021)
Settleable Solids	mL/L	--	0.086 (2023)	0.30 (05/18/2023)
Tannins and Lignins	mg/L	--	7.55 (2021)	12.9 (12/17/2020)
Total Dissolved Solids (TDS)	mg/L	--	534 (2021)	682 (12/6/2021)
Total Suspended Solids (TSS)	mg/L	--	29.9 (2021)	108 (01/05/2021)
Zinc, Total	µg/L	--	--	31 (02/17/2021)

Based on 679 flow measurements at Discharge Point 001 between December 2019 and June 2024, the industrial storm water discharge flow ranged from 0.010 MGD to 21.8 MGD, with a calendar annual average range of

3.26 MGD to 6.59 MGD, which equates to an annual total storm water discharge volume between 368 MG and 751 MG.

3. **Storm Water Action Level Study.** Industrial storm water data collected during Order R5-2014-0035 indicated that the Discharger may not be able to consistently comply with the storm water action levels (SWALs) for aluminum, iron, and manganese established in Order R5-2019-0048. Thus, Order R5-2019-0048 required the Discharger to conduct a SWAL Study to determine appropriate site-specific SWALs for aluminum, iron, and manganese that will ensure compliance with the water quality objectives applicable to the receiving water while not being unnecessarily stringent. The SWAL Study proposed the following site-specific SWALs 4,129 µg/L for total recoverable aluminum, 3,775 µg/L for total recoverable iron, and 643.6 µg/L for total recoverable manganese. The proposed site-specific SWALs were calculated at the upper threshold limit of the 95th percentile with a 95% confidence limit (UTL95-95) using U.S. EPA's ProUCL5.1 on industrial storm water data from October 2015 through April 2022.

   In addition, the SWAL Study demonstrated that the native soils at the Facility and in the local area have high concentrations of both aluminum and iron with similar percent compositions as the industrial storm water discharge. The Discharger suspects that the elevated aluminum and iron concentrations in the industrial storm water discharge are the result of erosion and the presence of natural sediment in the discharge, as there is a positive correlation between the elevated metal concentrations and total suspended solids in the industrial storm water discharge at the Facility. Furthermore, off-site storm water samples had similar elevated metal profiles (i.e., percent composition) that exceeded aluminum and iron SWALs, which further supports that the exceedances of metal SWALs is tied to the local geochemistry and not the sawmill/cogeneration operations at the Facility.

D. Compliance Summary

1. The Central Valley Water Board issued a Notice of Violation for violations of the previous Order's Discharge Prohibitions III.A, III.B, III.D, and III.F, resulting from the unauthorized discharge of approximately 40,000 gallons of concentrate wastewater from the VSEP system, which drained to an internal storm water conveyance that led to the storm water retention pond and ultimately discharged to Canyon Creek, on 26-27 May 2019. In response, the Discharger replaced the errant valve on the VSEP system and returned the entire contents of the storm water retention pond to the wastewater power pond, on 27 May 2019.

2. The Central Valley Water Board issued a Notice of Violation for violation of acute toxicity effluent limitation of 70% for minimum percent survival for any one bioassay, on 17 December 2020.

3. The Central Valley Water Board issued a Notice of Violation for violations of the previous Order's Discharge Prohibitions III.A, III.B, III.D, and III.F, resulting from the unauthorized discharge of approximately 189,750 gallons of log deck recycling pond wastewater into the vault box that was open for storm water drainage into the storm water retention pond, which discharged to Canyon Creek, on 3 January 2022. Immediate corrective actions taken by the Discharger included: shut down of the log deck pump to the VSEP system, capped the pipe where the faulty ball valve failed due to freezing temperatures, installed a new freeze tolerant valve next to strainer, and conducted compliance sampling from the storm water retention pond and upstream and downstream receiving water samples.

4. Compliance with storm water action levels (SWALs): SWALs are not effluent limitations on the industrial storm water discharge. An exceedance of an action level does not constitute a violation of the Order R5-2019-0048; however, if any SWALs or any receiving water limitations are exceeded, then the Discharger is required conduct a best management practices (BMP) Improvement Evaluation and implement, if necessary, BMP improvements to reduce the industrial storm water pollutant concentration below the action level and/or eliminate the receiving water violation.

   The industrial storm water discharge concentration for aluminum, chemical oxygen demand, electrical conductivity, and iron exceeded the SWALs multiple times during the term of the previous Order. In addition, the downstream receiving water turbidity measurements exceeded the turbidity receiving water limitations, at times during the term of the previous Order. In response, the Discharger submitted BMP improvement evaluations with the associated self-monitoring reports and updated their storm water pollution prevention plan (SWPPP). The implemented BMP improvements focused on the reduction of erosion and suspended sediment in the industrial storm water runoff at the Facility included: wattle dams, wattles around drainage inlets, hillside netting, riprap and rock in drainage ditches, rock filled perforated PVC culverts, and a new turbidity curtain in stormwater retention pond.

E. Planned Changes

The Discharger is considering a pilot study of supplementing the boiler wood fuel during the winter months with wood chips generated on-site from cull logs (i.e., logs that are unmerchantable because of defects). The cull logs are proposed to be temporarily stored on the former bottom ash storage location located north of the log deck recycling pond. The cull logs will not be sprinkled with wastewater (i.e., dry decking). Storm water runoff from the cull log storage will be directed into the existing storm water drainage system around the log deck pond, past the ash storage area, and into the drainage that discharges into the storm water retention pond. The Discharger plans to update the SWPPP and BMPs to appropriately account for the storm water runoff.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

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

B. California Environmental Quality Act (CEQA)

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

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

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

   a. Basin Plan. The Central Valley Water Board adopted a Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fifth Edition, February 2019 (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 Canyon Creek, but does identify present and potential uses for Pit River from the mouth of Hat Creek to Shasta Lake, to which Canyon Creek, via Burney 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 Canyon Creek are as follows:

Table F-4 Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Canyon Creek	Existing: Municipal and domestic water supply (MUN), agricultural irrigation and stock watering (AGR), hydropower generation (POW), contact recreation, including canoeing and rafting (REC-1), other non-contact recreation (REC-2), cold freshwater habitat (COLD), warm and cold spawning (SPWN), and wildlife habitat (WILD). Potential: Warm freshwater habitat (WARM)
002 and 003	Underlying Groundwater	Existing: Municipal and domestic water supply (MUN), agricultural supply (AGR), industrial service supply (IND), industrial process supply (PRO).

b. **Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.** The Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan) was adopted by the State Water Resources Control Board (State Water Board) on 1 December 2020, under authority provided by Water Code sections 13140 and 13170. Except as otherwise indicated, this ISWEBE Plan establishes provisions for toxicity, water quality and sediment quality that apply to all inland surface waters, enclosed bays, and estuaries and coastal lagoons of the state, including both waters of the United States and surface waters of the state.

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.

The SIP states in footnote 1, *"This Policy does not apply to regulation of storm water discharges. The SWRCB has adopted precedential decisions addressing regulation of municipal storm water discharges in Orders WQ 91-03, 91-04, 96-13, 98-01, and 99-05. The SWRCB has also adopted two statewide general permits regulating the discharge of pollutants contained in storm water from industrial and construction activities."* This Order regulates the discharge of storm water from industrial activity to surface water. Therefore, the SIP provisions for establishment of effluent limitations are not applicable and effluent limitations for priority pollutants have not been established. However, receiving water limitations and best management practices (BMPs) ensure that beneficial uses of the receiving water are protected, and water quality standards are not exceeded.

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

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

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

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

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

   The storm water discharge from the Facility could be regulated under the existing State Board Water Quality Order 2014-0057-DWQ, as amended in 2015 and 2018, General Permit for Storm Water Discharges Associated with Industrial Activities (NPDES General Permit No. CAS000001) (Industrial General Permit); however, due to the complexity of the Facility and unique threats to water quality, the Central Valley Water Board has elected to regulate the Facility with an individual NPDES permit. Therefore, the Facility has not submitted an NOI to be covered under the Industrial General Permit and the discharge of industrial storm water to surface water is 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 11 May 2022 U.S. EPA gave final approval to California's 2020 – 2022 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 CFR 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." Canyon Creek is not listed as an impaired water body on the 2022 303(d) list. However, Canyon Creek is tributary to the Pit River (from confluence of N and

S Forks to Shasta Lake) and the Pit River is listed as impaired for: aluminum, iron, nutrients, organic enrichment/low dissolved oxygen, and dissolved oxygen.

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

Table F-5 303 (d) List for Pit River (from confluence of N and S Forks to Shasta Lake)

Pollutant	Potential Sources	TMDL Status
Nutrients	Unknown	2013
Organic Enrichment/Low Dissolved Oxygen	Unknown	2013
Dissolved Oxygen	Unknown	2035
Aluminum	Unknown	2035
Iron	Unknown	2035

3. The 303(d) listings and TMDLs have been considered in the development of the Order. A pollutant-by-pollutant evaluation of each pollutant of concern is described in section IV.C.3 of this Fact Sheet.

E. Other Plans, Polices and Regulations

1. **Title 27.** Title 27 of the CCR (hereafter Title 27) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste. However, Title 27 exempts certain activities from its provisions. Title 27, section 20090(b) contains an exemption for discharges of wastewater to land where the discharge is covered by WDRs, the discharge is in compliance with the Basin Plan, and the discharge does not need to be managed as a hazardous waste.

   The Discharger utilizes two lined wastewater ponds (log deck recycle pond and power plant pond) to contain industrial wastewater associated with the sawmill and cogeneration operations. It is not uncommon for the log deck recycle pond water and the power plant pond water to be discharged back and forth to each other. Based on data collected from October 2015 through August 2018, pH in the wastewater discharged to the log deck recycle pond and the power plant pond has ranged from 5.22 to 10.38, with an average of 7.7. Electrical conductivity in the wastewater discharged to the log deck recycle pond and the power plant pond has ranged from 601 µmhos/cm to 10,220 µmhos/cm, with an average of 4,007 µmhos/cm. The ponds are lined with a single 60-millimeter HDPE geomembrane. The Discharger performed a leak detection test on the pond liners for both ponds during the term of Order R5-2014-0035, which determined groundwater impacts from the discharge of industrial wastewater to the lined ponds are insignificant. Groundwater impacts from the discharge of industrial wastewater to the lined wastewater ponds should be insignificant.

The discharges authorized herein are exempt from the requirements of CCR, Title 27, section 20005 et seq. (hereafter Title 27). The exemption, pursuant to CCR, Title 27, section 20090(b), is based on the following:

a. The Central Valley Water Board is issuing WDRs;

b. The discharge is in compliance with the Basin Plan; and

c. The wastewater effluent discharged to the ponds does not need to be managed as hazardous waste.

2. **Wood Ash.** Pursuant to state and federal regulations, wood ash, classified as non-hazardous waste, may be beneficially reused as an agricultural soil amendment, or other appropriate use. This Order does not authorize storage, transportation, or disposal of ash or other wastes characterized as hazardous wastes. Appropriate 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), 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 limitations necessary to ensure that water quality standards are met. This requirement applies to narrative criteria as well as 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 limitations 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. 122.44(d) requires that permits include WQBELs 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," which 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 of municipal water supplies or to fish flesh or other edible products or aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses."

A. Discharge Prohibitions

1. **Prohibition III.A (No discharge of industrial storm water 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 40 C.F.R. section 122.41(m)(4)).** As stated in section I.G of Attachment D, Standard Provisions, this Order prohibits bypass from any portion of the Facility. Federal regulations, 40 C.F.R. section 122.41(m), define "bypass" as the intentional diversion of waste streams from any portion of a treatment facility. This section of the federal regulations, 40 C.F.R. section 122.41(m)(4), prohibits bypass unless it is unavoidable to prevent loss of life, personal injury, or severe property damage. In considering

the Regional Water Board's prohibition of bypasses, the State Water Board adopted a precedential decision, Order No. WQO 2002-0015, which cites the federal regulations, 40 C.F.R. section 122.41(m), as allowing bypass only for essential maintenance to assure efficient operation.

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

4. **Prohibition III.D (No discharge of hazardous waste or toxic substances).** This prohibition is based on CCR, title 22, section 66261.1 et seq. that prohibits discharge of hazardous waste. The Basin Plan also provides that all waters shall be maintained free of toxic substances. Water treatment chemicals used in maintaining the water quality within the boiler and cooling tower may cause toxicity to aquatic life. This Order prohibits the discharge of boiler and cooling tower blowdown, hazardous, or toxic substances (including water treatment chemicals) to surface waters or surface water drainage courses. In addition, the Basin Plan states that surface waters shall not contain oils, greases, or other materials in concentrations that cause nuisance or result in a visible film or coating on the surface of the water. This Order prohibits the discharge of petroleum products, including oil, grease, gasoline, and diesel, to surface waters or surface water drainage courses.

5. **Prohibition III.E (No discharge of recycle water from log yard sprinkling, commingled recycle and storm water, cooling tower blowdown, boiler blowdown, boiler and cooling tower recycle water treatment systems effluent, or other waste of recognizable sawmill or cogeneration origin).** Consistent with Order R5-2019-0048, this Order prohibits discharges of recycle water from log yard sprinkling, commingled recycle and storm water, cooling tower blowdown, boiler blowdown, boiler and cooling tower feed and makeup water treatment systems effluent (i.e., ROS reject water, VSEP condensate, and sand filter backwash), or other waste of recognizable sawmill or cogeneration origin to surface waters or surface water drainage courses. This prohibition is consistent with the discharge characterization provided in the Report of Waste Discharge.

6. **Prohibition III.F (No discharge of storm water leachate from wood fuel stockpiles and ash piles to surface waters or surface water drainage courses).** Consistent with Order R5-2019-0048, this Order prohibits discharges of storm water leachate from wood fuel stockpiles and ash piles to surface water or surface water drainage courses. This Order requires the Discharger to implement BMPs to prevent these discharges. This prohibition is consistent with the discharge characterization provided in the Report of Waste Discharge.

7. **Prohibition III.G (No discharge of ash, bark, sawdust, wood, or any waste recognized as originating from sawmill or cogeneration operations).** Consistent with Order R5-2019-0048, this Order prohibits the discharge of ash, bark, sawdust, wood, or any waste recognized as originating from sawmill or cogeneration operations 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 ash and cooling tower sludge to surface waters or surface water drainage courses).** Consistent with Order R5-2019-0048, this Order prohibits the discharge of ash and cooling tower sludge to surface waters or 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 debris recognized as originating from the sawmill or cogeneration operations at the Facility).** Effluent limitation guidelines (ELGs) were established in 40 C.F.R. part 429, subpart I for the Wet Storage Subcategory of the Timber Products Point Source Category, which applies to the 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. section 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. section 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-inch) 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 originating 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.

10. **Prohibition III.J (No discharge of wastewater from barking, sawmill, and planing operations to surface waters or surface water drainage courses).** ELGs were established at 40 C.F.R. Part 429, subpart A, for 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, re-sawing, 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) requires 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 require that there shall be no discharge of process wastewater pollutants into navigable waters. Consistent with 40 C.F.R. section 429.21(a), 429.121, and 429.123, this Order prohibits discharges of process wastewater from barking, sawmill, and planing operations 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 hazardous or designated waste to the ponds).** Consistent with Order R5-2019-0048, this Order prohibits the discharge to land of hazardous waste according to CCR, Title 23, section 2521(a), CCR, section 2510, et seq., or of designated waste according to sections 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 Effluent Limitations Guidelines and Standards for the Timber Products Processing Category in 40 C.F.R. Part 429, specifically, subpart A (Barking Subcategory), subpart I (Wet Storage), and subpart K (Sawmills and Planing Mills), and Best Professional Judgment (BPJ) in accordance with 40 C.F.R. section 125.3

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

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

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

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

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

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

2. Applicable Technology-Based Effluent Limitations

The Discharger operates a “wet deck” log storage operation, a “barking” operation, and a “sawmill 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 Point 001:

a. **Barking Operations.** As discussed in section IV.A.10 of this Fact Sheet, ELGs 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. part 429.21(a), this Order establishes a prohibition of discharges of process wastewater from barking operations to surface water or surface water drainage courses.

b. **Wet Storage Operations.** As discussed in section IV.A.9 of this Fact Sheet, ELGs established at 40 C.F.R. Part 429, subpart I for Wet Storage Subcategory of the Timber Products Point Source Category are applicable to the Facility. Consistent with 40 C.F.R. part 429.101 and 429.103, this Order prohibits the discharge of debris recognized as originating from the Facility to surface water or surface water drainage courses.

40 C.F.R. section 429.101 and 429.103 also require that the pH be within the range of 6.0 to 9.0. The ELGs for the Wet Storage Subcategory at 40 C.F.R. sections 429.101 and 429.103 are not directly applicable to discharges of industrial storm water (i.e., subsequent to the “first flush”) from the log yards. However, if an instantaneous minimum and maximum pH of 6.0 and 9.0, respectively, must be achieved for discharges of process wastewater from the log yard area, the Central Valley Water Board finds that it should also be achievable for subsequent discharges of industrial storm water. Therefore, the Order includes instantaneous minimum and maximum effluent limitations for pH of 6.0 and 9.0, respectively, for discharges of industrial storm water at Discharge Point 001 based on BPJ.

c. **Sawmill and Planing Mill Operations.** As discussed in section IV.A.10 of this Fact Sheet, ELGs 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 Point 001

Table F-6 Summary of Technology-based Effluent Limitations

Parameter	Units	Effluent Limitations
pH	SU	Instantaneous Max 9.0 Instantaneous Min 6.0

C. Water Quality-Based Effluent Limitations and Storm Water Action Levels

1. Scope and Authority

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

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

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

Finally, 40 C.F.R. section 122.44(d)(1)(vii) requires effluent limits to be developed consistent with any available WLAs 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 (SWALs), 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 C.F.R. sections 131.2 and 131.10, require that all waters of the State regulated to protect the beneficial uses of public water supply, protection and propagation of fish, 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.** The Facility discharges industrial storm water to Canyon Creek, a tributary of Burney Creek, within the Pit River Hydrologic Unit (526.00). The Burney Creek watershed supports valuable commercial timberland and high-quality sport fishing for resident rainbow trout. The majority of Burney Creek watershed is privately owned and managed for commercial timber production. The watershed also encompasses several large ranches with irrigated land use for pasture, hay, and wild rice. Refer to III.C.1. above for a complete description of the receiving water and beneficial uses.

b. **Effluent and Ambient Background Data.** The evaluation of compliance with receiving water objectives, as described in section IV.C.3 of this Fact

Sheet, was based on data from December 2019 through June 2024, which includes industrial storm water (effluent) and ambient background data submitted in SMRs.

c. **Assimilative Capacity/Mixing Zone.** Current flow data indicates that, at times, Canyon Creek is dominated by industrial storm water (effluent) from the Facility downstream of the discharge. The ephemeral nature of Canyon Creek means that the designated beneficial uses must be protected, but that no credit for receiving water dilution is available. Although the discharge, at times, maintains the aquatic habitat, constituents may not be discharged that may cause harm to aquatic life.

The Discharger has not submitted a mixing zone/dilution study requesting dilution credits. Thus, consistent with the assumption used for Order R5-2019-0048, the worst-case dilution for Canyon Creek is assumed to be zero to provide protection of the receiving water beneficial uses. The impact of assuming zero assimilative capacity within the receiving water is that effluent limitations are applied end-of-pipe, with no allowance for dilution within the receiving water.

d. **Conversion Factors.** The CTR contains aquatic life criteria for arsenic, cadmium, chromium III, chromium VI, copper, lead, nickel, silver, and zinc. 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.

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

Based on 35 samples collected between December 2019 and May 2024, the effluent hardness ranged from 72 mg/L to 155 mg/L. Based on 30 paired samples collected between December 2019 and May 2024, the upstream receiving water hardness ranged from 23 mg/L to 57 mg/L and the downstream receiving water hardness ranged from 27 mg/L to 60 mg/L. The average hardness of both the upstream and downstream receiving water was approximately 39 mg/L. Actual observed ambient hardness data were used for evaluating compliance with water quality objectives for the industrial storm water discharge.

3. Determining the Need for Storm Water Action Levels

This Order regulates the discharge of storm water from industrial activity to surface water. The discharge is industrial 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 the industrial storm water (effluent) and upstream and downstream receiving water data collected during the term of Order R5-2019-0048 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, the industrial storm water discharge data has been compared to applicable storm water numeric action levels (NALs) from the General Permit for Storm Water Associated with Industrial Activities Order 2014-0057-DWQ, as amended in 2015 and 2018, NPDES Order No. CAS000001 (Industrial General Permit or IGP) and benchmark thresholds from the U.S. EPA Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) 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 (SWALs) for pollutants in the discharge that exceed applicable storm water NALs/benchmark thresholds or are causing exceedances of applicable water quality objectives in the downstream receiving water. The storm water action levels (SWALs) 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 industrial 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).

a. **Constituents with No SWAL.** Central Valley Water Board staff conducted a review of the industrial storm water data collected during the term of Order R5-2019-0048. All industrial storm water analyses are included in the administrative record and a summary of the constituents of concern is provided in Attachment G. SWALs are not included in this Order for constituents that do not demonstrate a potential to cause or contribute to an instream excursion of an applicable water quality objective; however, monitoring for these pollutants is established in this Order.

   Most constituents are not discussed in this Order, as industrial storm water discharge is well below the pollutant NALs and/or water quality objectives/criteria for these constituents. This section only provides the rationale for the constituents of concern that were found to have no potential for a SWAL after assessment of the industrial storm water discharge data:

i. **Iron**

(a) **WQO.** 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) criteria is 1,000 µg/L. In addition, the State Water Board Division of Drinking Water (DDW) has established Secondary MCLs 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. The Basin Plan requires compliance with Secondary MCLs on an annual average basis with samples that have been passed through a 1.5-micron filter.

Table 1 of the Industrial General Permit includes iron as an additional analytical parameter for Steam Electric Power Generating Facilities (SIC 4911), which is applicable due to the cogeneration operations at the Facility. Table 2 of the Industrial General Permit states that the annual NAL for total iron is 1,000 µg/L, which is based on the U.S. EPA NAWQC. Thus, Order R5-2019-0048 included an industry-specific annual average storm water action level of 1,000 µg/L for iron. However, the iron benchmark was suspended in the 2021 MSGP, based on the lack of documented acute toxicity.

(b) **Storm Water Analysis.** Filtered (2-micron) iron concentrations in the industrial storm water (effluent) ranged from 110 µg/L to 1080 µg/L, with a maximum calendar annual average of 751 µg/L, based on 43 samples collected from December 2019 through May 2024. Based on 32 samples collected concurrently in the upstream and downstream receiving water between December 2019 and May 2024, filtered iron concentrations in the upstream receiving water ranged from 59.7 µg/L to 242 µg/L, with a maximum calendar annual average of 173 µg/L, and filtered total recoverable iron concentrations in the downstream receiving water ranged from 59.8 µg/L to 230 µg/L, with a maximum calendar annual average of 206 µg/L.

Based on the available data, filtered iron concentrations in the industrial storm water discharge did exceed the Secondary MCL. However, the filtered iron concentrations in the downstream receiving water do not exceed the Secondary MCL. Therefore, the industrial storm water discharge is not causing exceedances of the applicable water quality objectives for iron in the downstream receiving water. Additionally, the SWAL Study suggests that the elevated iron concentrations in the

industrial storm water discharge are due to erosion and the presence of the native soils in the industrial storm water discharge.

Thus, based on the above, this Order does not retain the storm water action level for iron. The receiving water beneficial uses will still be protected through this Order's requirement of SWALs for settleable solids and total suspended solids that when exceeded require the Discharger to evaluate and update the Facility's BMPs in order to reduce sediment in the storm water discharge.

ii. **Manganese**

(a) **WQO.** DDW has established Secondary MCLs 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. The Basin Plan requires compliance with Secondary MCLs on an annual average basis with samples that have been passed through a 1.5-micron filter.

Order R5-2019-0048 included a site-specific annual average storm water action level of 1,000 µg/L for manganese based on the benchmark threshold in Table 3 of the 2000 MSGP. However, the 2008 MSGP removed the benchmark for manganese because there were no U.S. EPA established criteria for this parameter.

(b) **Storm Water Analysis.** Filtered (2-micron) manganese concentrations in the industrial storm water (effluent) ranged from 4.15 µg/L to 510 µg/L, with a maximum calendar annual average of 263 µg/L, based on 43 samples collected from December 2019 through May 2024. Based on 30 samples collected concurrently in the upstream and downstream receiving water between December 2019 and May 2024, filtered manganese concentrations in the upstream receiving water ranged from 2.74 µg/L to 145 µg/L, with a maximum calendar annual average of 60 µg/L, and filtered manganese concentrations in the downstream receiving water ranged from 2.9 µg/L to 132 µg/L, with a maximum calendar annual average of 62 µg/L.

Based on available data, filtered manganese concentrations in the industrial storm water discharge did exceed the Secondary MCL. However, there was no significant difference in the manganese concentrations in the upstream and downstream

receiving water, which also exceeded the Secondary MCL. In addition, the site-specific SWAL study suggests that the elevated manganese concentrations in the industrial storm water discharge weakly correlate with the presence of sediment in the discharge at the Facility.

Therefore, based on the above, this Order does not retain the storm water action level for manganese. The receiving water beneficial uses will still be protected through this Order's requirement of SWALs for settleable solids and total suspended solids that when exceeded require the Discharger to evaluate and update the Facility's BMPs in order to reduce sediment in the storm water discharge.

iii. **pH**

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

(b) **Storm Water Analysis.** The industrial storm water (effluent) pH ranged from 6.00 SU to 8.89 SU for 129 samples collected between December 2019 and May 2024, and the downstream receiving water pH ranged from 6.65 SU to 7.88 SU for 99 samples collected between December 2019 and May 2024.

Based on the 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 is not causing exceedances of the applicable water quality objectives in the downstream receiving water for pH. Therefore, this Order does not include SWAL 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 SU and 9.0 SU, respectively, based on BPJ for discharges of industrial storm water for Sawmills and Planing Mills (SIC 2421).

b. **Constituents with No Data or Insufficient Data.** – Not Applicable

c. **Constituents with SWAL.** The Central Valley Water Board finds that the industrial storm water discharge has a potential to cause or contribute to an instream excursion above a water quality standard for aluminum, chemical oxygen demand, electrical conductivity, oil and grease, settleable solids, tannins and lignins, total suspended solids, and zinc. SWALs for these constituents are included in this Order. A summary of the industrial storm water discharge data, downstream receiving water

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

i. **Aluminum**

(a) **WQO.** The State Board Division of Drinking Water (DDW) has established Secondary MCLs 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. The Basin Plan requires compliance with Secondary MCLs on an annual average basis with samples that have been passed through a 1.5-micron filter. DDW has also established Primary MCLs to address health-related effects of drinking water. The Primary MCL for aluminum is 1,000 µg/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 U.S. EPA aluminum criteria have been used to implement the Basin Plan's narrative toxicity objective.

A site-specific CMC of 268 µg/L and CCC of 159 µg/L were calculated considering pH, hardness, and DOC representative of the receiving water and industrial storm water (effluent) conditions. Industrial storm water (effluent) and receiving water sampling results for pH, DOC, and hardness from December 2019 to May 2024 were used in the evaluation.

Order R5-2019-0048 included a site-specific annual average storm water action level of 750 µg/L for total recoverable aluminum from Table 2 of the Industrial General Permit, which is based on the 1988 national recommended acute freshwater aquatic life criteria. However, the total recoverable aluminum benchmark threshold was updated to 1,100 µg/L in the 2021 MSGP. This update reflects the 2018 U.S. EPA recommended changes that aluminum criteria include the effects of water chemistry (i.e., pH, hardness, and DOC) on the bioavailability of aluminum and affect toxicity to aquatic organisms. To generate

the updated aluminum benchmark value in the 2021 MSGP, the U.S. EPA calculated a nationally representative acute water quality criteria value using water quality data reported in the USGS National Water Information System (NWIS) database and collected from surface waters across the conterminous U.S. between 1984 and 2018.

(b) **Storm Water Analysis.** Filtered (2-micron) aluminum concentrations in the industrial storm water (effluent) ranged from 7.56 µg/L to 1080 µg/L, with a maximum calendar annual average of 530 µg/L, based on 43 samples collected between December 2019 and May 2024. Based on 32 samples collected concurrently in the upstream and downstream receiving water between December 2019 and May 2024, filtered aluminum concentrations in the upstream receiving water ranged from 7.41 µg/L to 204 µg/L, with a maximum calendar annual average of 110 µg/L, and filtered aluminum concentrations in the downstream receiving water ranged from 7.05 µg/L to 186 µg/L, with a maximum calendar annual average of 99 µg/L.

Based on the available data, filtered aluminum concentrations in the industrial storm water discharge did exceed the Secondary MCL. In addition, the filtered aluminum concentrations in the downstream receiving water do not exceed the Secondary MCL. However, the concentration of aluminum in the storm water discharge at the Facility exceeded 750 µg/L at times, during the term of the permit. Therefore, the industrial storm water discharge has the potential to cause or contribute to an instream excursion above the Secondary MCL.

(c) **SWAL.** This Order includes an annual average storm water action level for aluminum of 1,100 µg/L based on the updated U.S. EPA NAWQC in the 2021 MSGP. If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMPs in order to reduce aluminum concentrations in the storm water discharge.

ii. **Chemical Oxygen Demand (COD)**

(a) **WQO.** 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 industrial storm water runoff, especially carbon. Table 1 of the Industrial General Permit includes COD as an additional industry specific analytical parameter for Sawmills and Planing Mills (SIC 2421) which is applicable to the Facility. Thus, Order

R5-2019-0048 included an annual average storm water action level of 120 mg/L for COD from Table 2 of the Industrial General Permit.

(b) **Storm Water Analysis.** The industrial storm water (effluent) COD ranged from 33 mg/L to 258 mg/L, with a maximum annual average of 127 mg/L, for 33 samples collected between December 2019 and May 2024. Upstream and downstream receiving water monitoring data for COD is not available. Analysis of the industrial storm water (effluent) data shows that the concentration of COD in the storm water discharge at the Facility exceeded 120 mg/L, at times during the term of the permit.

(c) **SWAL.** Based on the levels of COD in the industrial storm water (effluent) and the nature of the industrial runoff from the sawmill operations, this Order maintains the annual average storm water action level of 120 mg/L for COD based on the NAL in the Industrial General Permit. If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMPs in order to reduce the COD in the storm water discharge.

iii. **Oil and Grease**

(a) **WQO.** The Basin Plan includes a water quality objective for oil and grease in surface waters, which states: "[w]aters shall not contain oils, greases, waxes, or other materials 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." The storm water annual average numeric action level value in Table 2 of the Industrial General Permit for the indicator parameters, oil and grease, is 15 mg/L and the instantaneous maximum is 25 mg/L.

(b) **Storm Water Analysis.** Based on 8 industrial storm water (effluent) samples collected between December 2019 and April 2024, the concentration of oil and grease ranged from 0.01 mg/L to 13.2 mg/L, with a maximum annual average of 9.05 mg/L. However, no upstream or downstream receiving samples were collected during the term of the permit.

Furthermore, the Industrial General Permit includes oil and grease as an indicator parameter for the amount of petroleum hydrocarbons in the storm water discharge. At very low concentrations, oil and grease can cause sheen on the surface of water. Oil and grease can adversely affect aquatic life, cause unsightly floating material and make water undrinkable.

Potential significant sources of oil and grease include, but are not limited to, maintenance shops, vehicles, machines and roadways, which are present at the Facility.

Therefore, the Central Valley Water Board finds that SWALs for oil and grease are required due to the levels of oil and grease in the industrial storm water discharge and the industrial nature of the runoff from the sawmill and cogeneration operations at the Facility.

(c) **SWAL.** This Order establishes an annual average stormwater action level of 15 mg/L for oil and grease based on the numeric action level values in Table 2 of the Industrial General Permit. If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMPs in order to reduce oil and grease in the storm water discharge.

iv. **Salinity (Electrical Conductivity and Total Dissolved Solids)**

(a) **WQO.** The Basin Plan contains a chemical constituent objective that incorporates state MCLs, contains a narrative objective, and contains numeric water quality objectives for certain specified water bodies for electrical conductivity, total dissolved solids, sulfate and chloride. The U.S. EPA Ambient Water Quality Criteria for Chloride recommends acute and chronic criteria for the protection of aquatic life. There are no U.S. EPA water quality criteria for the protection of aquatic life for electrical conductivity, total dissolved solids, and sulfate. Additionally, there are no U.S. EPA numeric water quality criteria for the protection of agricultural, livestock, and industrial uses. Numeric values for the protection of these uses are typically based on site specific conditions and evaluations to determine the appropriate constituent threshold necessary to interpret the narrative chemical constituent Basin Plan objective. The Central Valley Water Board must determine the applicable numeric limit to implement the narrative objective for the protection of agricultural supply. Order R5-2019-0048 included a storm water action level of 700 µmhos/cm for electrical conductivity based on the CV-SALTS recommended level for protection of the agricultural supply beneficial use. Table F-7, below, contains various recommended levels for EC, TDS, sulfate, and chloride.

Table F-7 Salinity Water Quality Criteria/Objectives

Parameters	Secondary MCL Recommended Level	Secondary MCL Upper Level	Secondary MCL Short-term Maximum	U.S. EPA NAWQC	Maximum Calendar Annual Average Effluent Conc.	Maximum Daily Effluent Conc.
EC (µmhos/cm)	900	1,600	2,200	N/A	558 (2021)	885 (01/28/2021)
TDS (mg/L)	500	1,000	1,500	N/A	534 (2021)	682 (12/06/2021)
Sulfate (mg/L)	250	500	600	N/A	--	179 (02/17/2021)
Chloride (mg/L)	250	500	600	860 1-hour / 230 4-day	--	19.2 (02/17/2021)

Table F-7 Notes:

1. **Agricultural Water Quality Objectives.** Applicable agricultural water quality objectives vary. Procedures for establishing the applicable numeric limitation to implement the narrative chemical constituent objective can be found in the Policy for Application of Water Quality Objectives, section 4.2.2.1.9 of the Basin Plan. However, the Basin Plan does not require improvement over naturally occurring background concentrations. In cases where the natural background concentration of a particular constituent exceeds an applicable water quality objective, the natural background concentration will be considered to comply with the objective.
2. **Secondary MCLs.** Secondary MCLs are for protection of public welfare and are stated as a recommended level, upper level, and a short-term maximum level.
3. **Chloride.** The Secondary MCL for chloride is 250 mg/L, as a recommended level, 500 mg/L as an upper level, and 600 mg/L as a short-term maximum.
4. **Electrical Conductivity or Total Dissolved Solids.** The Secondary MCL for EC is 900 µmhos/cm as a recommended level, 1,600 µmhos/cm as an upper level, and 2,200 µmhos/cm as a short-term maximum, or when expressed as TDS is 500 mg/L as a recommended level, 1,000 mg/L as an upper level, and 1,500 mg/L as a short-term maximum. This Order implements the Basin Plan site specific EC limit for Canyon Creek (WDR section V.A.11).
5. **Sulfate.** The Secondary MCL for sulfate is 250 mg/L as a recommended level, 500 mg/L as an upper level, and 600 mg/L as a short-term maximum.

(b) **Storm Water Analysis.**

(1) **Chloride.** Chloride concentrations in the effluent ranged from 14 mg/L to 19.2 mg/L, with a maximum calendar annual average of 19.2 mg/L, for 2 samples collected by the Discharger in February 2020 and March 2021. These

levels do not exceed the Secondary MCL recommended level. Background concentrations in Canyon Creek ranged from 4.9 mg/L to 11.6 mg/L, with a maximum calendar annual average of 11.6 mg/L, for 2 samples collected by the Discharger in February 2020 and March 2021.

(2) **Electrical Conductivity.** A review of the Discharger's monitoring reports shows a maximum calendar annual average industrial storm water (effluent) EC of 558 µmhos/cm, with a range from 110 µmhos/cm to 885 µmhos/cm for the 63 samples between December 2019 and May 2024. These levels do not exceed the Secondary MCL recommended level (900 µmhos/cm). Based on sampling conducted in the upstream and downstream receiving water between December 2019 and May 2024, the upstream receiving water maximum calendar annual average EC was 115 µmhos/cm, with a range of 21 µmhos/cm to 144 µmhos/cm, and the downstream receiving water maximum calendar annual average EC was 155 µmhos/cm, with a range of 27 µmhos/cm to 226 µmhos/cm for the 50 samples between December 2019 and May 2024.

The EC in freshwater streams typically range from 100 µmhos/cm to 2,000 µmhos/cm and pure rainwater typically has a very low EC value (i.e., less than 10 µmhos/cm). Therefore, the industrial storm water discharge from the Facility does not cause or contribute to an instream excursion above the Secondary MCLs for EC. However, the EC measurements in the Facility's storm water discharge exceed the observed range of the receiving water and what would generally be expected to in pollutant-free storm water runoff.

(3) **Sulfate.** Sulfate concentrations in the industrial storm water (effluent) ranged from 99.4 mg/L to 179 mg/L, with a maximum annual calendar average of 179 mg/L, for 2 samples collected by the Discharger in February 2020 and March 2021. These levels do not exceed the Secondary MCL recommended level (250 mg/L). Background concentrations in Canyon Creek ranged from approximately 0.27 mg/L(DNQ) to approximately 0.36 mg/L(DNQ), with a maximum annual calendar average of 0.36 mg/L (DNQ) for 2 samples collected by the Discharger in February 2020 and March 2021.

(4) **Total Dissolved Solids.** The maximum annual calendar average TDS industrial storm water (effluent) concentration was 534 mg/L with concentrations ranging from 193 mg/L to 682 mg/L for the 35 samples between December 2019 and May 2024. These levels exceed the Secondary MCL. The background receiving water TDS ranged from 94 mg/L to 94 mg/L, with a maximum annual calendar average of 94 mg/L for 2 samples collected by the Discharger in February 2020 and March 2021.

(c) **SWAL.** The Discharger submitted a Notice of Intent for the Salinity Control Program indicating its intent to meet the Alternative Salinity Permitting Approach. Consistent with the Alternative Salinity Permitting Approach, this Order requires the Discharger to participate in the Salinity P&O Study, to continue to implement a Salinity Evaluation and Minimization Plan (SEMP) to identify and address sources of salinity discharged from the Facility, and retains the annual average storm water action level for EC of 700 µmhos/cm for the protection of the agricultural supply beneficial use.

v. **Settleable Solids**

(a) **WQO.** For inland surface waters, the Basin Plan states that "[w]ater shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses."

(b) **Storm Water Analysis.** Settleable solids ranged from 0.01 ml/L to 0.30 ml/L, with a maximum calendar annual average of 0.086 ml/L, for 33 industrial storm water (effluent) samples collected between December 2019 and May 2024; therefore, the industrial storm water discharge has a potential to cause or contribute to an excursion above the Basin Plan's narrative objective for settleable solids in the downstream receiving water.

Additionally, the Discharger submitted a SWAL Study that indicated that the high concentration of metals in the discharge was a result of the presence of natural soils in the industrial storm water discharge. Thus, to ensure the effectiveness of BMPs, the Central Valley Water Board find that a SWAL for settleable solids is required.

(c) **SWAL.** This Order establishes an annual average stormwater action level of 0.2 ml/L for settleable solids for what can be reasonably achieved in a well-designed, constructed, and

operated settling basin for the types of contaminants encountered in the timber industry (wood debris and soil particles). If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMPs in order to reduce the settleable solids in the storm water discharge.

vi. **Tannins and Lignins**

(a) **WQO.** 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 industrial storm water (effluent) or receiving water. Some studies have indicated that elevated levels of tannins and lignins are harmful to aquatic life.

(b) **Storm Water Analysis.** Based on 33 industrial storm water (effluent) samples collected between December 2019 and May 2024, the concentration of tannins and lignins ranged from 0.7 mg/L to 12.9 mg/L, with a maximum calendar annual average of 7.5 mg/L. However, no upstream or downstream receiving samples for tannins and lignins were collected during the term of the permit.

The maximum industrial storm water concentration for tannins and lignins (12.9 mg/L) and the maximum industrial storm water concentration for COD (258 mg/L), both occurred with the 17 December 2020 discharge sample. Additionally, the likely sources of tannins and lignins in the industrial storm water include bark, sawdust, wood, and wood waste at the Facility, as well as, wood leachates from the sawmill and cogeneration operations.

(c) **SWAL.** Based on the levels of tannins and lignins in the industrial storm water (effluent) and the nature of the storm water runoff from sawmill operations, an annual average annual 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 BMPs in order to reduce tannins and lignins in the storm water discharge.

vii. **Total Suspended Solids (TSS)**

(a) **WQO.** 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 Table 2 of the Industrial General Permit for General Sawmills and Planing Mills (SIC 2421) for the indicator parameter, TSS, is 100 mg/L and the instantaneous maximum is 400 mg/L.

(b) **Storm Water Analysis.** TSS concentrations in the industrial storm water (effluent) ranged from 1 mg/L to 108 mg/L, with a maximum annual average of 30 mg/L, based on 33 samples collected from December 2019 through May 2024. Upstream and downstream receiving water data for TSS is not available.

Furthermore, the Industrial General Permit uses TSS as an indicator parameter for sediment from erosion and dirt from impervious (i.e., paved) areas and sediment bound pollutants. Many pollutants adhere to sediment particles; therefore, reducing sediment will reduce the amount of these pollutants in storm water discharge. Additionally, the Discharger's SWAL Study suggested that the high concentrations of metals in the industrial storm water discharger at the Facility results from the presence of native sediment in the discharge.

(c) **SWAL.** Thus, based on the levels of the TSS in the industrial storm water (effluent) and the nature of the industrial runoff at the Facility, an annual average storm water action level of 100 mg/L has been established in this Order based on the numeric action level values in Table 2 of the Industrial General Permit. If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMPs in order to reduce TSS in the storm water discharge.

viii. **Zinc**

(a) **WQO.** 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 3-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 industrial storm water (effluent) and receiving water. The Basin Plan also includes hardness-dependent criterial 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 ambient receiving water hardness of 27 mg/L, the applicable CTR acute and chronic criteria for zinc in the industrial storm water (effluent) are 40 µg/L and 40 µg/L, respectively, as total concentrations. Additionally, using a design hardness of 27 mg/L, the applicable Basin Plan objective for total recoverable zinc is 12 µg/L.

Table 1 of the Industrial General Permit includes zinc as an additional industry specific analytical parameter for Sawmills and Planing Mills (SIC 2421), which is applicable to the Facility. Table 2 of the Industrial General Permit states that the hardness-dependent annual numeric action level for Zinc, Total (H) is 260 µg/L, based on the highest hardness value in the U.S. EPA hardness Table 8.A-1 in the 2008 MSGP.

(b) **Storm Water Analysis.** Based on two samples collected concurrently in March 2020 and February 2021, the range of total zinc was from 19.7 µg/L to 30.9 µg/L in the industrial storm water discharge and the range of total zinc in the upstream receiving water was approximately 0.7 µg/L (DNQ) to approximately 1 (DNQ) µg/L. No downstream receiving water samples were analyzed for zinc during the term of the permit.

The concentration range for total zinc measurements in the Facility's industrial storm water discharge exceeds the observed range of the receiving water and what would generally be expected in pollutant-free storm water runoff. In addition, the concentration of total zinc in the industrial storm water discharge from the Facility exceeds the applicable numeric water quality objectives.

(c) **SWAL.** Thus, an annual average storm water action level of 260 µg/L for total recoverable zinc has been established in this Order based on the Timber Products sector-specific numeric action level in the Industrial General Permit. If exceeded, the Discharger is required to evaluate and update, if necessary, the Facility's BMPs in order to reduce zinc in the industrial storm water discharge.

Summary of Final Storm Water Action Levels (SWALs)
Discharge Point 001

Table F-8 Summary of Final Storm Water Action Levels

Parameter	Units	Average Annual SWAL	Maximum Daily SWAL	Basis
Aluminum, Total Recoverable	µg/L	1,100	--	NAWQC, MSGP 2021
Chemical Oxygen Demand	mg/L	120	--	IGP
Electrical Conductivity	µmhos/cm	700	--	BP
Oil and Grease	mg/L	15	25	IGP
Settleable Solids	ml/L	0.2	--	BP
Tannins and Lignins	mg/L	30	--	BP
Total Suspended Solids	mg/L	100	400	IGP
Zinc, Total Recoverable	µg/L	260	--	IGP

Table F-8 Notes:

1. NAWQC – Based on U.S. EPA National Ambient Water Quality Criteria for the protection of freshwater aquatic life.
2. MSGP – Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities (MSGP) for General Sawmills and Planing Mills (SIC 2421) and Steam Electric Generating Facilities (SIC 4911)
3. IGP – Industrial General Permit
4. BP – Based on water quality objectives contained in the Basin Plan.

4. WQBEL Calculations

This Order does not include WQBELs for individual constituents.

5. Whole Effluent Toxicity (WET)

The State Water Board's toxicity provisions are applicable to the industrial storm water discharge and are hereafter referred to as the Toxicity Provisions.

To evaluate compliance with the Statewide Toxicity Provisions aquatic toxicity numeric objectives, whole effluent toxicity testing data has been evaluated in the development of this Order.

a. Acute Toxicity

i. **WQO.** The acute aquatic toxicity water quality objective is expressed as a null hypothesis and an alternative hypothesis with a regulatory

management decision (RMD) of 0.80, where the following null hypothesis, Ho, shall be used:

Ho: Mean response (ambient water) ≤ 0.80 • mean response (control)

And where the following alternative hypothesis, Ha, shall be used:

Ha: Mean response (ambient water) > 0.80 • mean response (control)

Attainment of the water quality objective is demonstrated by conducting acute aquatic toxicity testing and rejecting this null hypothesis in accordance with the TST statistical approach. When the null hypothesis is rejected, the alternative hypothesis is accepted in its place, and there is no exceedance of the acute aquatic toxicity water quality objective. Failing to reject the null hypothesis (referred to as a "fail") is equivalent to an exceedance of the acute aquatic toxicity water quality objective.

ii. **RPA.** The acute WET testing performed by the Discharger on the industrial storm water discharge from December 2019 through June 2024 is in Table F-9 below:

Table F-9 Acute Whole Effluent Toxicity Testing Results

Date	**Rainbow Trout (Oncorhynchus mykiss) Survival**
	Percent Survival
12/09/2019	100
03/03/2020	100
12/17/2020	60
01/11/2021	100
02/17/2021	100
10/25/2021	100
03/22/2022	100
12/06/2022	100
04/05/2023	100
01/03/2024	100
04/03/2024	100

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 WQBELs are required for specific pollutants for all facilities that exhibit certain operational or discharge characteristics (e.g., WQBELs for pathogens in all permits for POTWs discharging to contact recreational waters)."

Based on acute toxicity testing conducted between December 2019 and April 2024, the industrial storm water discharge exceeded the acute toxicity effluent limitation in Order R5-2019-0048. Therefore, the discharge has a reasonable potential to cause or contribute to an instream exceedance of the Statewide Toxicity Provisions aquatic toxicity numeric objectives. Thus, water quality-based effluent limits for acute toxicity are required in this Order.

iii. **WQBELs.** The following effluent limitations have been established for acute whole effluent toxicity:

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

Acute Whole Effluent Toxicity MMEL. No more than one acute aquatic toxicity tests initiated in a toxicity calendar month shall result in a "Fail" at the Instream Waste Concentration (IWC).

b. **Chronic Toxicity**

i. **WQO.** The chronic aquatic toxicity water quality objective is expressed as a null hypothesis and an alternative hypothesis with a regulatory management decision (RMD) of 0.75, where the following null hypothesis, Ho, shall be used

Ho: Mean response (ambient water) ≤ 0.75 • mean response (control)

And where the following alternative hypothesis, Ha, shall be used:

Ha: Mean response (ambient water) > 0.75 • mean response (control)

Attainment of the water quality objective is demonstrated by conducting chronic aquatic toxicity testing and rejecting this null hypothesis in accordance with the Test of Significant Toxicity (TST) statistical approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1 (Chronic Freshwater and East Coast Methods) and

Appendix B, Table B-1. When the null hypothesis is rejected, the alternative hypothesis is accepted in its place, and there is no exceedance of the chronic aquatic toxicity water quality objective. Failing to reject the null hypothesis (referred to as a "fail") is equivalent to an exceedance of the chronic aquatic toxicity water quality objective.

ii. **RPA.** Order R5-2019-0048 did not require chronic WET testing to be conducted by the Discharger. The industrial storm water (effluent) is discharged consistently during the wet season; therefore, in order to evaluate if the discharge has a reasonable potential to cause or contribute to an exceedance of the chronic aquatic toxicity water quality objective, this Order requires chronic toxicity testing at an instream waste concentration of 100 percent effluent for water flea, *Ceriodaphnia dubia* (survival and reproduction), fathead minnow, *Pimephales promelas* (larval survival and growth), and green algae, *Selenastrum capriocornutum* (growth) as discussed in section VII.D. of this Fact Sheet.

D. Final Effluent Limitation Considerations

1. Mass-based Effluent Limitations

40 C.F.R. section 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 C.F.R. section 122.45(f)(2) allows pollutants that are limited in terms of mass to additionally be limited in terms of other units of measurement. This Order does not include effluent limitations expressed in terms of mass. Pursuant to the exceptions to mass limitations provided in 40 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 MCLs) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

2. Averaging Periods for Effluent Limitations

40 C.F.R. section 122.45(d) requires maximum daily and average monthly discharge limitations for all dischargers other than POTWs unless impracticable. For pH, AMELs and MDELs have been replaced or supplemented with effluent limitations utilizing shorter averaging periods. The rationale for using alternative averaging periods for pH is discussed in section IV.C.3 of this Fact Sheet.

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).

All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, R5-2019-0048.

4. Antidegradation Policies

a. **Surface Water.** 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. This Order requires compliance with applicable federal technology-based standards and WQBELs where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. The permitted surface water discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and the State Anti-Degradation Policy. Compliance with these requirements will result in the use of BPTC of the discharge. The impact on existing water quality will be insignificant.

b. **Groundwater.** The Discharger utilizes two wastewater ponds (log deck recycling pond and power plant pond) to contain industrial wastewater associated with the sawmill and cogeneration operations, which are both lined with a single 60-mm HDPE geomembrane. The Discharger performed a leak detection test on the pond liners for both ponds during the term of Order R5-2014-0035, which determined the groundwater impacts from the discharge of industrial wastewater to the lined ponds are insignificant. Additionally, the Discharger relined the log yard recycling pond in March 2018 and relined the power plant pond in October 2024. Therefore, based on leak detection testing results, this Order maintains the narrative groundwater limitations for facilities without groundwater wells and no numeric groundwater limitations from Order R5-2019-0048. In order to ensure groundwater quality protection, the Discharger shall conduct a leak detection test on both the log-deck recycle pond and power plant pond liners as a requirement of this Order. Therefore, the Central Valley Water Board finds that the leak detection requirement is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and the State Antidegradation Policy.

5. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on pH. Restrictions on pH are discussed in section IV.B.2 of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

WQBELs have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Summary of Final Effluent Limitations
Discharge Point 001

Table F-10 Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations	Basis
pH	SU	Instantaneous Max 9.0 Instantaneous Min 6.0	ELG
Acute Toxicity	Pass/Fail and % Effect	MDEL: Fail AND Greater than 50% effect MMEL: Fail	TOX

Table F-10 Notes:

1. **ELG** – Based on Effluent Limitation Guidelines.
2. **TOX** – Based on Statewide Toxicity Provisions.

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, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, pesticides, radioactivity, salinity, 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.

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 constituents 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/100mL. 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 40 C.F.R. 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. **Water Effects Ratio (WER) and Metal Translators.** A default WER of 1.0 has been used in this Order for calculating criteria for applicable inorganic constituents. In addition, default dissolved-to-total metal translators have

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

b. **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/)

2. Special Studies and Additional Monitoring Requirements

a. **Storm Water Action Levels and Best Management Practice (BMP Improvement Evaluation.** As discussed in section IV.C.3 of this Fact Sheet, this Order establishes numeric action levels for constituents of concern in discharges of industrial storm water (effluent). 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 storm water action levels are used to determine if the 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 limitations, 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.

b. **Leak Detection.** In order to ensure groundwater quality protection, the Discharger shall conduct a leak detection testing on both the log-deck recycle pond and power plant pond liners.

c. **Toxicity Reduction Evaluation (TRE).** The Discharger is required to initiate a TRE, as detailed in the Monitoring and Reporting Program (Attachment E, Section V.H), when any combination of two or more MDEL

or MMEL violations occur within a single toxicity calendar month or within two successive toxicity calendar months. In addition, if other information indicates toxicity (e.g., results from additional monitoring, results from fish kills, intermittent recurring toxicity) or if there is no effluent available to complete a routine monitoring test, MDEL test, or MMEL compliance test, the Executive Officer may require a TRE.

A TRE Work Plan is required to outline the procedures for identifying the source(s) of and reducing or eliminating effluent toxicity. The TRE Work Plan must be of adequate detail to allow the Discharger to immediately initiate a TRE and shall be developed in accordance with section V.H.2 in Attachment E and submitted by the due date in the Technical Reports Table E-9.

3. Best Management Practices and Pollution Prevention

a. **Salinity Evaluation and Minimization Plan (SEMP).** The Basin Plan includes a Salt Control Program for discharges to groundwater and surface water. The Salt Control Program is a phased approach to address salinity in the Central Valley Region. During Phase I the focus will be on conducting a Prioritization and Optimization (P&O) Study to provide information for subsequent phases of the Salt Control Program. During Phase I, the Salt Control Program includes two compliance pathways for dischargers to choose; a Conservative Salinity Permitting Approach and an Alternative Salinity Permitting Approach.

The Discharger submitted a notice to intent for the Salt Control Program on 2 July 2021 indicating its intent to meet the Alternative Salinity Permitting Approach. Under the Alternative Permitting Approach, the Basin Plan requires dischargers implement salinity minimization measures to maintain existing salinity levels and participate in the P&O Study. The Discharger's NOI demonstrated adequate participation in the P&O and this Order requires continued participation to meet the requirements of the Alternative Salinity Permitting Approach. This Order also requires continued implementation of the Discharger's SEMP and includes a performance-based salinity SWAL to ensure salinity levels do not increase.

b. **Storm Water Pollution Prevention Plan (SWPPP**). This Order requires the Discharger to implement BMPs, including treatment controls where necessary, to support attainment of water quality standards. The use of BMPs 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 BMPs are reasonably necessary to achieve effluent limitations and 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 record and useful SWPPP, the SWPPP must be revised 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 if the Discharger has not achieved the general objectives of controlling pollutants in the storm water discharges.

c. **Facility-Specific Best Management Practices (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 recycle pond prior to subsequent storm water being allowed to be discharged off-site to surface water. The BMP was developed by the Discharger after performing a log deck flushing study, which identified a minimum amount of rainfall needed to "flush" the log deck area of pollutants related to the dry season sprinkling activity. 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. **Log Deck Recycle Pond, Power Plant Pond, and Storm Water Retention Pond Operations.**

i. The operation and maintenance specifications for the log deck recycle pond, power plant pond, and storm water retention pond are necessary to protect the beneficial uses of the surface waters and groundwater. The specifications included in this Order are retained from Order R5-2019-0048.

ii. Anaerobic (lacking oxygen) processes tend to produce aesthetically undesirable odors. To minimize production of undesirable odors, the Discharger is required to maintain some (at least 1.0 mg/L) dissolved oxygen in the upper one foot of the log deck recycle pond and power plant pond.

5. Special Provisions for 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 CCR, Title 27, division 2, subdivision 1, section 20005, et seq., and approved by the Executive Officer.

7. Compliance Schedules – Not Applicable

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 authorize the Central Valley Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The burden, including costs, of these monitoring and reporting requirements bears a reasonable relationship to the need for the reports and the benefits to be obtained therefrom. The Discharger, as owner and operator of the Facility, is required to comply with these requirements, which are necessary to determine compliance with this Order. The following provides additional rationale for the monitoring and reporting requirements contained in the MRP for this Facility.

Water Code section 13176, subdivision (a), states: “The analysis of any material required by [Water Code sections 13000-16104] shall be performed by a laboratory that has accreditation or certification pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code.” The DDW accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP).

Section 13176 cannot be interpreted in a manner that would violate federal holding time requirements that apply to NPDES permits pursuant to the CWA. (Wat. Code sections 13370, subd. (c), 13372, 13377.). Section 13176 is inapplicable to NPDES permits to the extent it is inconsistent with CWA requirements. (Wat. Code section 13372, subd. (a).) Lab accreditation is not required for field tests such as tests for color, odor, turbidity, pH, temperature, dissolved oxygen, electrical conductivity, and disinfectant residual. The holding time requirements are 15 minutes for dissolved oxygen and 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.

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 or discharge prohibitions. 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 have been retained from Order R5-2019-0048, except as noted in Table F-11, below.

3. Monitoring data collected over the previous permit term for total recoverable and filtered aluminum, and dissolved organic carbon demonstrate that the discharge is not causing exceedances of the applicable water quality objectives/criteria in the downstream receiving water. Thus, this Order reduces the monitoring frequency from twice a month to once a month for these parameters. The Central Valley Water Board finds that this frequency is necessary to demonstrate compliance with the applicable water quality objectives/criteria for aluminum and the annual average storm water action level for aluminum.

4. This Order establishes monthly industrial storm water (effluent) monitoring for total recoverable copper in order to determine if the discharge has the potential to cause or contribute to an exceedance of the downstream receiving water quality objectives/criteria. The Central Valley Water Board finds that this frequency is necessary for characterizing the storm water discharge for copper.

5. Monitoring data collected over the previous permit term for total recoverable and filtered iron, and total recoverable and filtered manganese demonstrate that the discharge is not causing exceedances of the applicable water quality objectives/criteria in the downstream receiving water. Thus, this Order decreases the monitoring frequency from twice a month to once a month for these parameters. The Central Valley Water Board finds that this frequence is necessary to demonstrate compliance with downstream receiving water quality objectives/criteria for iron and manganese.

6. Order R5-2019-0048 required oil and grease monitoring twice per year. This Order increases the monitoring frequency for oil and grease from twice per year to once per month. The Central Valley Water Board finds that this frequency is necessary to determine compliance with the annual average storm water action level for oil and grease.

7. This Order establishes monthly monitoring of total recoverable zinc. The Central Valley Water Board finds that this frequency for total recoverable zinc is necessary to demonstrate that the discharge is not causing exceedances of the

applicable water quality objectives/criteria for zinc and to determine compliance with annual average storm water action level for zinc.

C. Receiving Water Monitoring

1. Surface Water

a. Receiving water monitoring is necessary to assess compliance with receiving water limitations and to assess the impacts of the discharge on the receiving stream. Receiving surface water monitoring frequencies and sample types have been retained from Order R5-2019-0048, except as noted in Table F-11, below.

b. Order R5-2019-0048 required receiving water monitoring for total recoverable and filtered aluminum, dissolved organic carbon, for total recoverable and filtered iron, and for total recoverable and filtered manganese twice per month at Monitoring Locations RSW-001 and RSW-002. This Order decreases the monitoring frequency for these parameters from twice per month to once per month. The Central Valley Water Board finds that this frequency is necessary to assess the impact of the discharge on the receiving water for these parameters.

c. This Order establishes monthly receiving water monitoring requirements for total recoverable and dissolved copper, total recoverable and dissolved zinc, and tannins and lignins at Monitoring Locations RSW-001 and RSW-002. The Central Valley Water Board finds that this frequency is necessary to assess the impact of the discharge on the receiving water for these parameters.

2. Groundwater – Not Applicable

Table F-11 Summary of Monitoring Changes

Parameter, Units	Type of Monitoring	Prior Sample Frequency	Revised Sample Frequency	Reason for Change
Aluminum, Total Recoverable and Filtered	Effluent	2/Month	1/Month	Required to determine compliance with SWAL
Copper, Total Recoverable	Effluent	2/Permit Term	1/Month	Necessary to characterize the industrial storm water discharge
Dissolved Organic Carbon	Effluent	2/Month	1/Month	Required to determine criteria for aluminum in receiving water
Iron, Total Recoverable and Filtered	Effluent	2/Month	1/Month	Necessary to characterize the industrial storm water discharge

Parameter, Units	Type of Monitoring	Prior Sample Frequency	Revised Sample Frequency	Reason for Change
Manganese, Total Recoverable and Filtered	Effluent	2/Month	1/Month	Necessary to characterize the industrial storm water discharge
Oil and Grease	Effluent	2/Year	1/Month	Required to determine compliance with SWAL
Priority Pollutants	Effluent	2/Permit Term	1/Permit Term	Necessary to characterize the industrial storm water discharge
Zinc, Total Recoverable	Effluent	2/Permit Term	1/Month	Required to determine compliance with SWAL
Aluminum, Total Recoverable and Filtered	Receiving Water (RSW-001 and RSW-002)	2/Month	1/Month	Necessary to assess the impact of aluminum in the discharge on the receiving water
Copper, Total Recoverable	Receiving Water (RSW-001 and RSW-002)	2/Permit Term	1/Month	Necessary to assess the impact of the copper in the discharge on the receiving water
Copper, Dissolved	Receiving Water (RSW-001 and RSW-002)	--	1/Month	Necessary to assess the impact of copper in the industrial storm water discharge on the receiving water
Dissolved Organic Carbon	Receiving Water (RSW-001 and RSW-002)	2/Month	1/Month	Required to determine criteria for aluminum in the receiving water
Iron, Total Recoverable and Filtered	Receiving Water (RSW-001 and RSW-002)	2/Month	1/Month	Necessary to assess the impact of iron in the discharge on the receiving water
Manganese, Total Recoverable	Receiving Water (RSW-001 and RSW-002)	2/Month	--	Total recoverable samples are not necessary to assess the impact of manganese in the discharge on the receiving water

Parameter, Units	Type of Monitoring	Prior Sample Frequency	Revised Sample Frequency	Reason for Change
Manganese, Filtered	Receiving Water (RSW-001 and RSW-002)	2/Month	1/Month	Filtered samples are necessary to determine the potential to exceed secondary MCL
Priority Pollutants	Receiving Water (RSW-001)	2/Permit Term	1/Permit Term	Necessary to characterize the industrial storm water discharge
Tannins and Lignins	Receiving Water (RSW-001 and RSW-002)	--	1/Month	Necessary to determine the impacts of the industrial storm water discharge
Zinc, Total Recoverable	Receiving Water (RSW-001 and RSW-002)	2/Permit Term	1/Month	Required to assess the impact of zinc in the discharge on the receiving water
Zinc, Dissolved	Receiving Water (RSW-001 and RSW-002)	--	1/Month	Required to assess the impact of zinc in the discharge on the receiving water

D. Whole Effluent Toxicity Testing Requirements

Aquatic toxicity testing is necessary to evaluate the aggregate toxic effect of a mixture of toxicants in the effluent on the receiving water. Acute toxicity testing is conducted over a short time period and measures mortality, while chronic toxicity testing is conducted over a short or longer period and may measure mortality, reproduction, and growth. For this permit, aquatic toxicity testing is to be performed following methods identified in the Code of Federal Regulations, title 40, part 136, or other U.S. EPA-approved methods, or included in the following U.S. EPA method manuals: Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition (EPA-821-R-02-013), and Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition (EPA-821-R-02-012).

Consistent with Order R5-2019-0048, twice yearly acute whole effluent toxicity testing is required to demonstrate compliance with the acute toxicity effluent limitation and the toxicity receiving water limitation. Consistent with the Statewide

Toxicity Provisions once per permit term chronic whole effluent toxicity testing is required to demonstrate compliance with the toxicity receiving water limitation.

1. The discharge is subject to determination of "Pass" or "Fail" from an acute toxicity test and a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1.

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

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

   A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail."

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

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

   This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations, i.e., a control and IWC. The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control, the test result is "Pass" or "Fail"). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.

4. **Toxicity Reduction Evaluation (TRE).** The Monitoring and Reporting Program of this Order requires WET testing to demonstrate compliance with the numeric toxicity effluent limitation or Basin Plan's narrative toxicity objective. The Discharger is required to initiate a TRE when there is any combination of two or more acute toxicity MDEL or MMEL violations within a single toxicity calendar month or within two successive toxicity calendar months has occurred. In addition, if other information indicates toxicity (e.g., results of additional monitoring, results of monitoring at a higher concentration than the IWC, fish kills, intermittent recurring toxicity), the Central Valley Water Board may require a TRE. A TRE may also be required when there is no effluent available to complete a routine monitoring test or MMEL compliance test.

   A Toxicity Evaluation Study (TES) may be conducted in lieu of a TRE if the percent effect at IWC is less than or equal to 50 percent. Determining the cause of toxicity can be challenging when the toxicity signal is low. Several Central Valley facilities with similar treatment systems have been experiencing intermittent low-level toxicity. The dischargers have not been successful

identifying the cause of the toxicity because of the low toxicity signal and the intermittent nature of the toxicity. Due to these challenges, the CVCWA, in collaboration with staff from the Central Valley Water Board, has initiated a Special Study to Investigate Low Level Toxicity Indications (Group Toxicity Study). This Order allows the Discharger to participate in an approved TES, which may be conducted individually or as part of a coordinated group effort with other similar dischargers that are exhibiting toxicity. Although the current CVCWA Group Toxicity Study is related to low-level toxicity, participation in an approved TES is not limited to only low-level toxicity issues.

E. Other Monitoring Requirements

1. Pond Monitoring

Treatment pond monitoring is required to ensure proper operation of the log deck recycle pond, power plant pond, and storm water retention pond. Weekly pond monitoring for freeboard in the log deck recycle pond, power plant pond, and storm water retention pond have been retained from Order R5-2019-0048 in order to assess compliance with the pond operating requirements in section VI.C.4.a of this Order. This Order includes visual pond monitoring for the presence or absence of: visible, films, sheens or coatings; odor; fungi, slimes, or objectionable growths; floating or suspended matter; and discoloration in order to assess compliance with the pond operating requirements in section VI.C.4.a of this Order.

2. Log Deck Drainage Monitoring

The annual Log Deck drainage monitoring is necessary to determine when the storm water runoff from the “first flush” of the Log Deck is complete and the runoff can be directed to the storm water pond. Precipitation monitoring is necessary to assess rainfall events and to determine compliance with monitoring requirements. Consistent with Order R5-2019-0048, this Order requires the Discharger to assess daily precipitation at the Facility.

3. Ash and Cooling Tower Sludge Monitoring

The annual ash and cooling tower sludge disposal report is necessary to determine the quantity of ash and cool tower sludge generated at the Facility and to ensure the proper handling of such material. This Order retains the annual Ash non-hazardous waste characterization monitoring requirements for the agricultural beneficial reuse as a soil amendment liming capacity, phosphorus, pH, CAM 17 metals, and 2,3,7,8-TCDD equivalence (consistent with CCR Title 27 division 2, subdivision 1, section 20005 et seq.). This Order removes the cooling tower sludge non-hazardous waste characterization requirements, as monitoring is required for disposal with Class III landfills.

4. **Effluent and Receiving Water Characterization Monitoring**

Periodic monitoring for priority pollutants for which criteria or objectives apply and for which no effluent limitations have been established is included in this Order. This Order requires industrial storm water (effluent) monitoring for priority pollutants and other pollutants of concern at Monitoring Location SW-001 once during the first discharge event of the 2026/2027 wet season that begins on 1 October 2026, and concurrent upstream receiving water monitoring at Monitoring Location RSW-001, in order to collect data to conduct a storm water analysis for the next permit renewal. See section IX.D of the MRP (Attachment E) for more detailed requirements related to performing priority pollutant monitoring.

5. **Aboveground Petroleum Storage Monitoring**

This Order does not regulate aboveground petroleum storage tanks at the Facility.

VIII. PUBLIC PARTICIPATION

The Central Valley Water Board has considered the issuance of WDRs that will serve as an NPDES permit for Burney Forest Power. As a step in the WDR adoption process, the Central Valley Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

A. Notification of Interested Persons

The Central Valley Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following posting of the Notice of Public Hearing at the Facility, city hall, and the local post office. The Notice of Public Hearing was also posted on the Central Valley Water Board's website.

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

B. Written Comments

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

To be fully responded to by staff and considered by the Central Valley Water Board, the written comments were due at the Central Valley Water Board office by 5:00 p.m. on **18 December 2024**.

C. Public Hearing

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

Date: **21 February 2025**
Time: **8:30 a.m.**
Location: Online **OR** Regional Water Quality Control Board, Central Valley Region
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, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

D. Reconsideration of Waste Discharge Requirements

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

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

Or by email at waterqualitypetitions@waterboards.ca.gov

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

E. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the 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 WDRs and NPDES permit should contact the Central Valley Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Erin Jonasson at (530) 224-6128 or Erin.Jonasson@waterboards.ca.gov.

ATTACHMENT G – SUMMARY OF INDUSTRIAL STORM WATER ANALYSIS

Constituent	Units	Max SW	Max Down RW	Paired Up RW	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	Prim. MCL	Sec. MCL	IGP NAL	RW Obj. Met?
Aluminum, Total	µg/L	2,101	195	170	159	268	159	--	--	--	1,000	--	1,100	Yes
Aluminum, Filtered	µg/L	530	99	81	200	--	--	--	--	--	--	200	--	Yes
COD	mg/L	127	NA	NA	--	--	--	--	--	--	--	--	120	--
Copper, Total	µg/L	6.8	NA	0.82	3.0	4.1	3.0	1,300	--	4.1	1,300	1,000	33.2	Yes
EC	µmhos/cm	559	155	114	700	--	--	--	--	700	--	900	--	Yes
Iron, Total	µg/L	1,857	400	386	1,000	--	1,000	--	--	--	--	--	1,000	Yes
Iron, Filtered	µg/L	751	177	173	300	--	--	--	--	--	--	300	--	Yes
Manganese, Total	µg/L	336	91	91	100	--	--	--	100	--	--	--	1,000	Yes
Manganese, Filtered	µg/L	263	62	60	50.	--	--	--	--	--	--	50.	--	Yes
O&G	mg/L	9.0	NA	NA	--	--	--	--	--	--	--	--	15	--
pH	SU	6.00 - 8.98	6.65 - 7.88	6.74 - 7.69	6.0 - 9.0	--	--	--	--	6.5-8.5	6.5-8.5	--	6.0-9.0	Yes
Settleable Solids	mL/L	0.085	NA	NA	--	--	--	--	--	--	--	--	--	--
Tannins and Lignins	mg/L	7.55	NA	NA	--	--	--	--	--	--	--	--	--	--
TDS	mg/L	534	NA	94	500	--	--	--	--	--	--	500	--	Yes
TSS	mg/L	29.9	NA	NA	--	--	--	--	--	--	--	--	100	--
Turbidity	NTU	38	4.1	3.6	50	--	--	--	--	--	--	--	50	Yes

Constituent	Units	Max SW	Max Down RW	Paired Up RW	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	Prim. MCL	Sec. MCL	IGP NAL	RW Obj. Met?
Zinc, Total	µg/L	31	NA	~1 (DNQ)	12	40.	40.	--	--	12	--	5,000	260	Fact Sheet IV.C.3. c.viii.

Attachment G Table Notes:

Data date range: December 2019 – June 2024, unless noted otherwise.

1. RW Obj. Met? Evaluates whether the maximum downstream concentrations are at or below the most stringent criteria, C.
2. For comparison with IGP NALs and MCLs, the Max SW and Max down RW values are a maximum calendar annual average, where the background receiving water, Paired Up RW, is the annual average for the same year as the Max Down RW.
3. IGP NALs (i.e., benchmark thresholds) for COD, copper, iron, O&G, pH, TSS, and zinc are from Table 2 of the General Permit for Storm Water Associated with Industrial Activities Order 2014-0057-DWQ as amended in 2015 and 2018, NPDES Order No. CAS000001 (Industrial General Permit).
4. IGP NALs (i.e., benchmark thresholds) for aluminum and turbidity are from Table 4-2 of the 2021 U.S. EPA NPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities (MSGP).
5. IGP NALs (i.e., benchmark thresholds) for manganese is from Table 3 of the 2000 U.S. EPA MSGP.
6. The CMC and CCC for aluminum were calculated using site-specific 2018 U.S. EPA National Ambient Water Quality Criteria.
7. An ambient hardness value of 27 mg/L CaCO3 was used to calculate the hardness-dependent metals criteria for both copper and zinc (i.e., the CMC, CCC, and BP).
8. The Basin Plan EC is based on CV-SALTS recommended level for protection of the agricultural supply beneficial use.
9. Iron CCC, U.S. EPA National Recommended Ambient Water Quality Criteria, Freshwater Aquatic Life Protection, 4-day average.

Abbreviations used in this table:

MEC =	Maximum Effluent Concentration
C =	Criterion used for Reasonable Potential Analysis
CMC =	Criterion Maximum Concentration (CTR or NTR)
CCC =	Criterion Continuous Concentration (CTR or NTR)
Water & Org =	Human Health Criterion for Consumption of Water & Organisms (CTR or NTR)
Org Only =	Human Health Criterion for Consumption of Organisms Only (CTR or NTR)
Basin Plan =	Numeric Site-Specific Basin Plan Water Quality Objective
MCL =	Drinking Water Standards Maximum Contaminant Level
IGP NAL =	Industrial General Permit Numeric Action Level
NA =	Not Available
ND =	Non-detect
DNQ =	Detected but not quantified