ORDER NO. R1-2012-0046
NPDES NO. CA0024520
WDID NO. 1B83065OHUM

WASTE DISCHARGE REQUIREMENTS
FOR THE SIERRA PACIFIC INDUSTRIES
ARCATA DIVISION SAWMILL
HUMBOLDT COUNTY

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	Sierra Pacific Industries
Name of Facility	Arcata Division Sawmill
Facility Address	2593 New Navy Base Road
	Arcata, CA 95521
	Humboldt County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a minor discharge.	

The discharge by Sierra Pacific Industries to the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Log deck sprinkler water and commingled storm water runoff	40º 52’ 9.37” N	124° 9’ 13.68” W	Freshwater wetland

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	June 7, 2012
This Order shall become effective on:	August 1, 2012
This Order shall expire on:	July 31, 2017
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	July 31, 2016

IT IS HEREBY ORDERED, that this Order supersedes Order No. R1-2006-0027 upon the effective date specified in Table 3. This action in no way prevents the Regional Water Quality Control Board from taking any enforcement action for past violations of the previous permit. If any part of this Order is subject to a temporary stay of enforcement, unless otherwise specified, the Discharger shall comply with the analogous portions of Order No. R1-2006-0027, which shall remain in effect for all purposes during the pendency of the stay.

I, Matthias St. John, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on June 7, 2012.

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Matthias St. John, Executive Officer

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	Sierra Pacific Industries
Name of Facility	Arcata Division Sawmill
Facility Address	2593 New Navy Base Road
	Arcata, CA 95521
	Humboldt County
Facility Contact, Title, and Phone	Jerry Kelley, Division Manager, (707) 443-3111
Mailing Address	P.O. Box 1189, Arcata, CA 95518
Type of Facility	Sprinkled Log Deck associated with the Sawmill (SIC Code 2421)
Facility Permitted Sprinkle Flow	0.6 million gallons per day (MGD)
Facility Design Treatment Capacity	5.1 million gallons per day (MGD)

II. FINDINGS

The California Regional Water Quality Control Board, North Coast Region (hereinafter Regional Water Board), finds:

Basis and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the Discharger's application for permit renewal, monitoring data submitted during the term of the Discharger's previous Order, and other available information. The Fact Sheet (Attachment F) contains facility information, legal authorities, and rationale for Order requirements. The Fact Sheet as well as Attachments A through E are hereby incorporated into this Order and constitute part of the Findings for this Order.

Background. Sierra Pacific Industries (hereinafter Discharger) is currently discharging wet deck process water from the Arcata Division Sawmill (hereinafter Facility) pursuant to National Pollutant Discharge Elimination System (NPDES) Permit No. CA0024520. The previous Order No. and Monitoring and Reporting

Program (MRP) No. for this NPDES Permit was R1-2006-0027. The Discharger submitted a Report of Waste Discharge application for an NPDES permit renewal on November 11, 2010. The application was deemed complete on January 10, 2012.

Facility Description. The Discharger owns and operates a large log sawmill that manufactures framing lumber, select high grade and industrial lumber, and Douglas Fir timbers. The Facility, located outside the city limits of Arcata, Humboldt County, California is directly adjacent to the mouth of Mad River Slough at Humboldt Bay as shown in Attachment B. The Facility consists of a paved log yard, sawmill, planer mill with a chemical application process for wood surface protection, debarker, sorter, dry kiln, fuel storage areas, and equipment maintenance areas. As part of the Discharger's operations at the Facility, water is applied to logs that are stacked to form log decks in a process called wet decking within a portion of the Facility known as the log yard. In this process, water is applied to log decks via sprinkler heads from an on-site water supply well up to 24 hours per day at a rate of up to 0.6 MGD to prevent whole logs from drying out and cracking. This activity results in the generation of log yard runoff. Storm water runoff which falls on the log yard area is commingled with process water flows and the combined flow is described as process water for purposes of this Order. Additional background and facility information is provided in the Fact Sheet. Attachment B provides a map of the area around the facility. Attachment C provides a flow schematic of the facility.

Monitoring and Reporting. Section 122.48, title 40 of the Code of Federal Regulations[1] requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the California Water Code (Water Code) authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishing monitoring and reporting requirements to implement federal and State requirements for the Discharger is provided in Attachment E.

III. DISCHARGE PROHIBITIONS

A. The discharge of any waste not disclosed by the Discharger or not within the reasonable contemplation of the Regional Water Board is prohibited.

Creation of pollution, contamination, or nuisance, as defined by section 13050 of the Water Code is prohibited.

[1] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise noted.

The discharge of domestic waste, treated or untreated, to surface waters is prohibited.

The discharge of waste at any point not described in Finding II of the Fact Sheet. or authorized by any State Water Board or other Regional Water Board permit is prohibited.

The discharge to surface water of process wastewater from bark removal (other than hydraulic barking as defined in 40 CFR 429.11), sawing, resawing, edging, trimming, planing and machining is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point No. 001

1. Final Effluent Limitations – Discharge Point No. 001

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the attached Monitoring and Reporting Program (Attachment E):

Table 5. Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	standard units	--	--	6.0	9.0

b. **Acute Toxicity.** There shall be no acute toxicity in the effluent discharged to the freshwater wetland. The Discharger will be considered compliant with this limitation when the survival of aquatic organisms in a 96-hour bioassay of undiluted process water complies with the following:

Minimum for any one bioassay: 70 percent survival; and

Median for any three or more consecutive bioassays[2]: at least 90 percent survival.

[2] During periods of survival greater than 90 percent, the median shall be reported using the three most recent consecutive bioassays. When survival is depressed below 90 percent, the median calculation shall be reported after two more consecutive bioassays have been completed. The median shall continue to be calculated using all bioassays from the first reduction in survival below 90 percent until the median survival of all such samples exceeds 90 percent survival or until three consecutive samples demonstrate survival exceeding 90 percent.

Compliance with this effluent limitation shall be determined in accordance with section V.A of the Monitoring and Reporting Program (Attachment E).

c. **Debris.** There shall be no debris (as defined in Attachment A) discharged.

Interim Effluent Limitations – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Water Quality Control Plan for the North Coast Region (the Basin Plan) and are a required part of this Order. Compliance with receiving water limitations shall be measured at monitoring locations described in the MRP (Attachment E). Discharges from the Facility shall not cause the following:

1. The discharge shall neither cause the pH of receiving waters to be depressed below 6.5 nor raised above 8.5.[3]

2. The discharge shall not cause the turbidity of receiving waters to be increased more than 20 percent above naturally occurring background levels.

3. The discharge shall not cause receiving waters to contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.

4. The discharge shall not cause receiving waters to contain floating materials, including, but not limited to, solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.

5. The discharge shall not cause receiving waters to contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.

6. The discharge shall not cause coloration of receiving waters that causes nuisance or adversely affects beneficial uses.

7. The discharge shall not cause bottom deposits in receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.

[3] If natural background pH levels are below 6.5, the discharge shall not cause the receiving water pH to be depressed any further, and if natural background pH levels are above 8.5, the discharge shall not cause the receiving water pH to be increased any further.

8. The discharge shall not cause or contribute concentrations of biostimulatory substances to receiving waters that promote objectionable aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.

9. The discharge shall not cause receiving waters to contain toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in humans, plants, animals, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods, as specified by the Regional Water Board.

10. The discharge shall not cause a measurable temperature change in the receiving water at any time unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.

11. The discharge shall not cause an individual pesticide or combination of pesticides to be present in concentrations that adversely affect beneficial uses. The discharge shall not cause bioaccumulation of pesticide, fungicide, wood treatment chemical, or other toxic pollutant concentrations in bottom sediments or aquatic life to levels which are harmful to human health.

12. The discharge shall not cause receiving waters to contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise affect beneficial uses.

13. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Water Resources Control Board, as required by the federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

14. The discharge shall not cause receiving water concentrations of chemical constituents to occur in excess of limits specified in Table 3-2 of the Basin Plan or in excess of more stringent Maximum Contaminant Levels (MCLs) established for these pollutants in title 22, Division 4, Chapter 15, Articles 4 and 5.5 of the California Code of Regulations.

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following Regional Water Board standard provisions:

   a. 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.

   b. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, interim or final effluent limitation, land discharge specification, reclamation specification, receiving water limitation, or provision of this Order that may result in a significant threat to human health or the environment, such as inundation of treatment components, breach of pond containment, sanitary sewer overflow, irrigation runoff, etc., that results in a discharge to a drainage channel or a surface water, the Discharger shall as soon as possible, but no later than two (2) hours after becoming aware of the discharge, orally[4] notify the California Emergency Management Agency, the local health officer or directors of environmental health with jurisdiction over the affected water bodies, and the Regional Water Board.

B. Monitoring and Reporting Program (MRP)

1. **Requirements**

   a. Compliance. The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.

[4] Oral reporting means direct contact with a Regional Water Board staff person. The oral report may be given in person or by telephone. After business hours, oral contact must be made by calling the California Emergency Management Agency or Regional Water Board spill officer.

b. Alternative Locations. The Discharger may submit a proposal to monitor the receiving water at locations different than receiving water locations specified in section VIII of the MRP. The Executive Officer will inform the Discharger within 90 days after receipt of the proposal whether the alternative monitoring locations are acceptable.

C. Special Provisions

1. Reopener Provisions

a. **Standard Revisions.** If applicable water quality standards are promulgated or approved pursuant to section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board may reopen this Order and make modifications in accordance with such revised standards.

b. **Reasonable Potential.** This Order may be reopened for modification to include an effluent limitation, if monitoring establishes that the discharge causes, or has the reasonable potential to cause or contribute to, an excursion above a water quality criterion or objective applicable to the receiving water.

c. **Whole Effluent Toxicity.** As a result of a Toxicity Reduction Evaluation (TRE), this Order may be reopened to include a chronic toxicity limitation, a new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE. Additionally, if a numeric chronic toxicity water quality objective is adopted by the State Water Resources Control Board; this Order may be reopened to include a numeric chronic toxicity effluent limitation based on that objective.

d. **303(d)-Listed Pollutants.** If an applicable total maximum daily load (TMDL) program is adopted, this Order may be reopened and effluent limitations for the pollutant(s) that are the subject of the TMDL will be modified or imposed to conform this Order to the TMDL requirements.

e. **Water Effects Ratios (WERs) and Metal Translators.** A default WER of 1.0 has been used in this Order for calculating water quality criteria for applicable priority pollutant 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.

f. **Mixing Zones.** If the Discharger collects sufficient information to justify a mixing zone and dilution credit consistent with the conditions listed in section 1.4.2.2 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP), the Regional Water Board may reopen this Order to allow a mixing zone.

g. **Beneficial Use Identification.** If the Discharger collects sufficient information to support a site specific identification of beneficial uses of the freshwater wetland receiving water, then this Order may be reopened to incorporate such analysis.

h. **Antidegradation Analysis.** If the Discharger performs an antidegradation analysis of increased flows to the freshwater wetland receiving water, this Order may be reopened to incorporate such analysis and allow for increased permitted flows.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

i. Whole Effluent Toxicity. The MRP of this Order requires routine monitoring for whole effluent chronic toxicity to determine compliance with the Basin Plan's narrative water quality objective for toxicity. As established by the MRP, if the acute toxicity effluent limitation or a chronic toxicity monitoring trigger of 1.0 TUc (where TUc = 100/NOEC)[5] is exceeded, the Discharger shall conduct accelerated monitoring as specified in section V. of the MRP. Results of accelerated toxicity monitoring will indicate a need to conduct a Toxicity Reduction Evaluation (TRE), if toxicity persists; or it will indicate that a return to routine toxicity monitoring is justified because persistent toxicity has not been identified by accelerated monitoring. TREs shall be conducted in accordance with the TRE workplan prepared by the Discharger pursuant to Section VI.C.2.a.ii of this Order, below.

ii. Toxicity Reduction Evaluations (TRE) Workplan. The Discharger shall prepare and submit to the Regional Water Board Executive Officer a TRE workplan within 90 days of the effective date of this Order. This plan shall be reviewed at least once every 5 years and updated as necessary in order to remain current and applicable to the discharge and discharge facilities. The Discharger shall notify the Regional Water

[5] This Order does not allow any credit for dilution for the chronic condition. Therefore, a TRE is triggered when the effluent exhibits a pattern of toxicity at 100% effluent.

Board of this review and submit any revision of the TRE workplan with each future Report of Waste Discharge.

The TRE workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include at least the following items:

(a) A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

(b) A description of the facility's methods of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used in the operation of this Facility.

(c) If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

iii. Toxicity Reduction Evaluations (TRE). The TRE shall be conducted in accordance with the following:

(a) The TRE shall be initiated within 30 days of the date of completion of the accelerated monitoring test, required by Section V of the MRP, observed to exceed either the acute or chronic toxicity parameter. Failure to conduct required toxicity tests or a TRE within the designated period shall result in appropriate enforcement action.

(b) The TRE shall be conducted in accordance with the Discharger's workplan.

(c) The TRE shall be in accordance with current technical guidance and reference material including, at a minimum, the USEPA manual EPA/833B 99/002 or other applicable USEPA guidance.

(d) The TRE may end at any stage if, through monitoring results, it is determined that there is no longer consistent toxicity.

(e) The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. TIEs shall be conducted in accordance with current technical guidance and reference material, including that, at a minimum, the Discharger shall use the USEPA acute and chronic manuals, EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III).

(f) As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the source(s) and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with chronic toxicity parameters.

(g) Many recommended TRE elements accompany required efforts of source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. To prevent duplication of efforts, evidence of complying with requirements of recommendations of such programs may be acceptable to comply with requirements of the TRE.

(h) The Regional Water Board recognizes that chronic toxicity may be episodic and identification of a reduction of sources of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the Regional Water Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

3. Best Management Practices and Pollution Prevention

a. **Pollutant Minimization Program (PMP)**

The Discharger shall, if required by the Executive Officer, develop and conduct a PMP as further described below when there is evidence (e.g., sample results reported as detected, not quantified (DNQ) when the effluent limitation is less than the reporting limit (RL), sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

i. A sample result is reported as DNQ and the effluent limitation is less than the reporting limit (RL); or

ii. A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

iii. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

iv. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the process water treatment system;

v. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

vi. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

vii. An annual status report that shall be submitted on March 1st to the Regional Water Board and shall include:

(a) All PMP monitoring results for the previous year;

(b) A list of potential sources of the reportable priority pollutant(s);

(c) A summary of all actions undertaken pursuant to the control strategy; and

(d) A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

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

b. The Discharger shall maintain an updated Operation and Maintenance (O&M) Manual for the wet decking process at the Facility. The Discharger shall update the O&M Manual, as necessary, to conform to changes in operation and maintenance of the Facility. The O&M Manual shall be readily available to operating personnel onsite for review by state or federal inspectors. The O&M Manual shall include the following:

Description of the treatment facility and table of organization showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc.). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.

Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.

Description of laboratory and quality assurance procedures.

Process and equipment inspection and maintenance schedules.

Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with requirements of this Order.

Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

c. **Basin 1 and 2 Operating Requirements.**

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

Basins shall be managed to minimize breeding of mosquitoes. In particular, an erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.

5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

6. Other Special Provisions

a. Solids Disposal and Handling Requirements.

The storage of basin sediments shall be done in a manner to prevent nuisance, pollution or impairment of beneficial uses of waters of the United States.

Any proposed change to the basin sediment disposal or storage practices as described in the Fact Sheet, shall be reported to the Executive Officer at least 90 days in advance of the change.

7. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below.

A. General

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

C. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

ATTACHMENT A – DEFINITIONS

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

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

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

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

Bioaccumulative pollutants are 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.

BMPs: means "best management practices." Best management practices means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

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

Coefficient of Variation (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: The term "debris" means 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) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

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.

Effective Concentration (EC) is a point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Karber. EC25 is the concentration of toxicant (in percent effluent) that causes a response in 25 percent of the test organisms.

Effluent Concentration Allowance (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 USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays

include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

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

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 runoff-producing storm event: The term "first runoff-producing storm event" means the first precipitation sequence following any log deck sprinkler use and the precipitation causes overflow from the detention basin to freshwater wetland.

Inhibition Concentration (IC). The IC25 is typically calculated as a percentage of effluent. It is the level at which the organisms exhibit 25 percent reduction in biological measurement such as reproduction or growth. It is calculated statistically and used in chronic toxicity testing.

Inland Surface Waters are all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

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

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

Maximum Daily Effluent Limitation (MDEL) means 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 is 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) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (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 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) are those sample results less than the laboratory's MDL.

Ocean Waters are 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.

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

Pollutant Minimization Program (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 Regional 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 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 or Regional Water Board.

Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Satellite Collection System is 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.

Six-month Median Effluent Limitation: the highest allowable moving median of all daily discharges for any 180-day period.

Source of Drinking Water is any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

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

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

where:

x is the observed value;

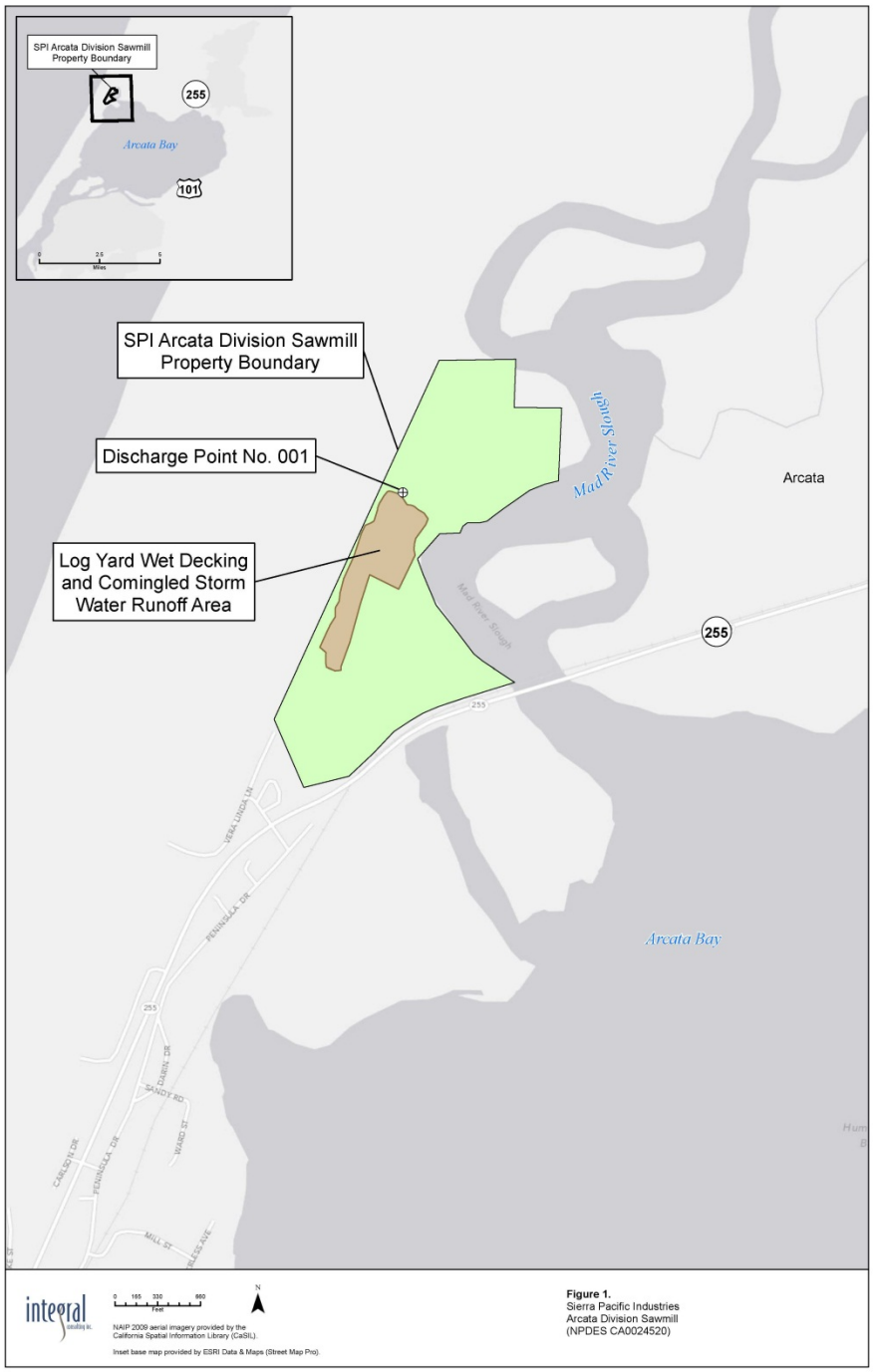
μ is the arithmetic mean of the observed values; and

n is the number of samples.

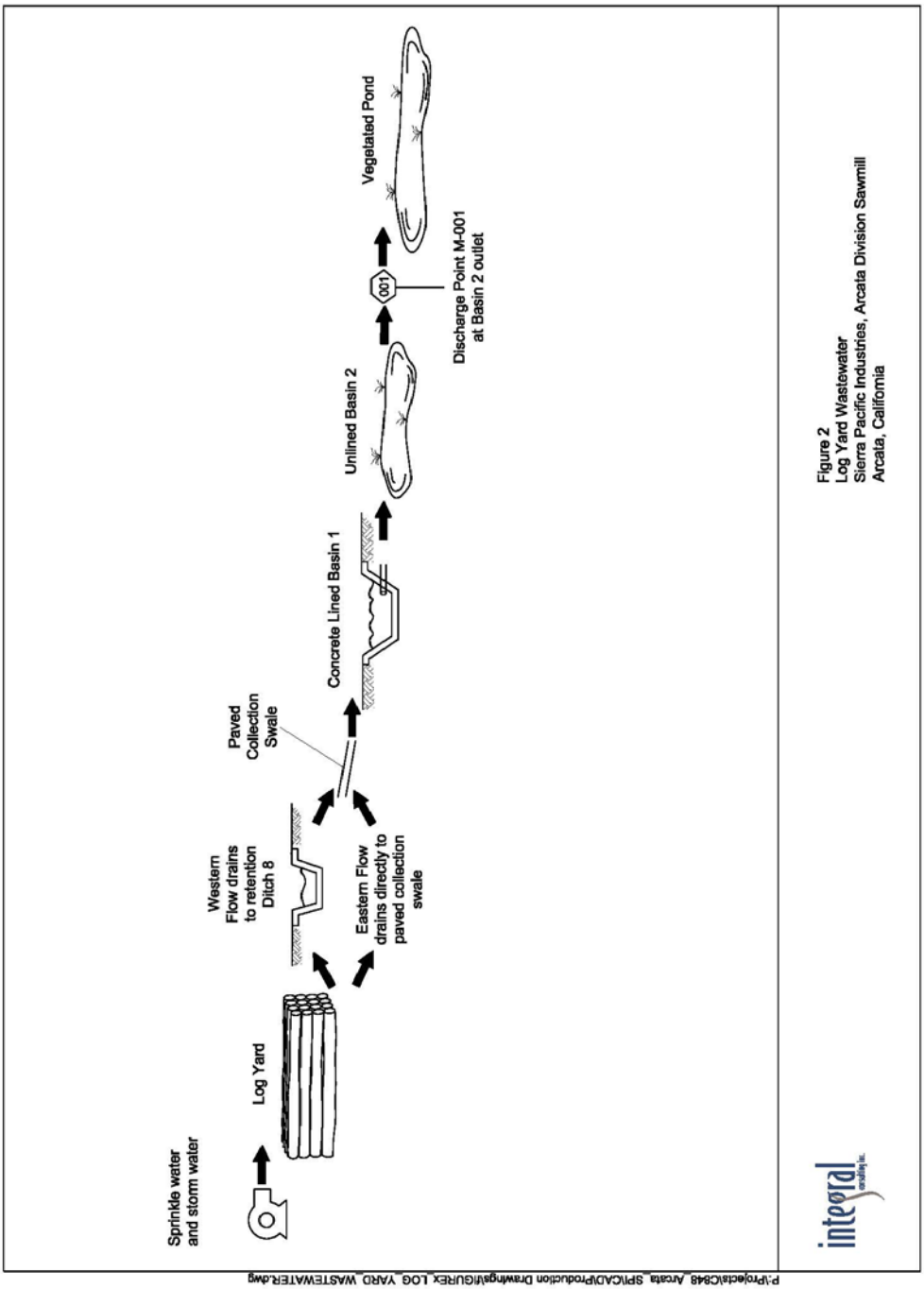
Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the

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

ATTACHMENT B – MAP



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the 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, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)

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. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

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

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

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

E. Property Rights

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

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

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), 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 (40 C.F.R. § 122.41(i); Wat. Code, § 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 (40 C.F.R. § 122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 122.41(i)(2));

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 C.F.R. § 122.41(i)(3)); 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. (40 C.F.R. § 122.41(i)(4).)

G. Bypass

1. Definitions

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

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

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

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

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

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

b. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.6 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)

4. Burden of Proof. In any enforcement proceeding, the Discharger seeking to establish the bypass defense has the burden of proof.

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

6. Notice

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

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

H. Upset

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

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

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

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

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

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

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

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

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

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

B. Monitoring results must be conducted according to test procedures under Part 136 unless other test procedures have been specified in this Order. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. 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 Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA 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 Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

Signatory and Certification Requirements

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

2. All permit applications shall be signed 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 CFR 122.22(a)(1).)

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

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

b. The authorization specified 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 CFR §122.22(b)(2)); and

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

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

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

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

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. § 122.22(l)(4).)

2. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

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

Compliance Schedules

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

Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)

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

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

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

c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order [40 CFR § 122.41(l)(6)(ii)(C)]

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

Planned Changes

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

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

3. 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 40 CFR 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 CFR 122.41(l)(1)(ii).)

Anticipated Noncompliance

The Permittee shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. (40 C.F.R. § 122.41(l)(2).)

Other Noncompliance

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

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 Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

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

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe (40 CFR 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 CFR 122.42(a)(1)):

a. 100 micrograms per liter (µg/L) (40 CFR 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 CFR 122.42(a)(1)(ii));

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

d. The level established by the Regional Water Board in accordance with 40 CFR 122.44(f). (40 CFR 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 CFR 122.42(a)(2)):

a. 500 micrograms per liter (µg/L) (40 CFR 122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 CFR 122.42(a)(2)(ii));

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

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 CFR 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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List of Tables

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (CFR) at 40 CFR 122.48 requires that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. California Water Code sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. Wastewater Monitoring Provision. Composite samples may be taken by a proportional sampling device approved by the Executive Officer or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed one hour.

B. If the Discharger monitors any pollutant more frequently than required by this Order, using test procedures approved by 40 CFR Part 136 or as specified in this Order, the results of such monitoring shall be included in the calculation submitted in the monthly and annual discharger monitoring reports.

C. Laboratories analyzing monitoring samples shall be certified by the California Department of Public Health (CDPH) in accordance with the provisions of Water Code section 13176, and must include quality assurance / quality control data with their analytical reports.

D. The Discharger shall develop, maintain and adhere to a standard operating procedure that follows the appropriate Standard Method for any sampling analysis performed by the Discharger for compliance with this order or MRP. Common examples of such analyses include flow, pH, chlorine residual and dissolved oxygen because the holding times for these analyses are sufficiently short that Dischargers often perform the analyses on-site or in the field. Any standard operating procedure kept for such analyses shall include, at a minimum:

1. Instrument calibration protocols and a log of such calibrations; and

2. Staff training procedures and a log of such trainings; and

3. A procedure for taking multiple readings of the same sample for data quality assurance.

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
--	INF-001	Water supply to the log deck sprinklers.
001	EFF-001	Process wastewater from Basin 2 prior to discharge to the freshwater wetland.
--	RSW-001	Outflow from the freshwater wetland upstream of tidal influence.
--	RSW-002, RSW-003, etc.	Receiving water locations within the freshwater wetland representative of various zones of mixing within the wetland.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

The Discharger shall monitor log deck sprinkler feed at INF-001 as follows:

Table E-2. Influent Monitoring – Monitoring Location INF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method[1]
Flow	gallons	total	Daily	Meter

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

The Discharger shall monitor process wastewater from Basin 2 prior to contact with receiving water at Monitoring Location EFF-001. Samples shall be analyzed as follows:

Table E-3. Effluent Monitoring – Monitoring Location EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gallons	Calculation	Daily	Rain Gauge
Dissolved Oxygen	mg/L	Grab	Monthly	Standard

[1] In accordance with the current edition of the *Standard Methods for Examination of Water and Wastewater* (American Public Health Administration) or current test procedures specified in 40 CFR Part 136.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
				Methods
pH	standard units	Grab	Monthly	Standard Methods
Debris	N/A	Visual	Monthly	N/A
Tannins and Lignins	mg/L	Grab	Monthly	Standard Methods
Color	Color Units	Grab	Monthly	Standard Methods
Temperature	°F or °C	Grab	Monthly	Standard Methods
Turbidity	NTU	Grab	Monthly	Standard Methods
Hardness, Total (as $CaCO_3$)[2]	mg/L	Grab	Quarterly	Standard Methods
Acute Toxicity[3]	% Survival	Grab	Once per month	See Section V.A below
Chronic Toxicity[3]	TUc	Grab	Annually	See Section V.B below
Chronic Toxicity (narrative)	Passed/Triggered[4]			--
All CTR Pollutants[5,6]	µg/L	Grab	1x/5 years[7]	Standard Methods
Detected CTR Pollutants[8]	µg/L	Grab	Annually	Standard

[2] Monitoring of the effluent for hardness shall be conducted concurrently with receiving water monitoring for hardness.

[3] Whole effluent acute and chronic toxicity shall be monitored in accordance with the requirements of section V of this Monitoring and Reporting Program.

[4] The Discharger shall include reporting regarding compliance with the narrative toxicity objective in Receiving Water Limitation V.A.10 by reporting whether the chronic toxicity test passed or failed in relation to the chronic toxicity trigger of 1.0 TUc. For narrative chronic toxicity reporting, "Passed" shall be reported when chronic toxicity effluent results do not trigger accelerated testing (e.g., a result of ≤1.0 TUc = 100/NOEC). "Triggered" shall be reported when chronic toxicity effluent results trigger accelerated testing by exceeding the chronic toxicity trigger of 1.0 TUc = 100/NOEC.

[5] CTR pollutants are those pollutants identified in the California Toxics Rule at 40 CFR 131.38.

[6] Monitoring receiving water for hardness shall be conducted concurrently with effluent monitoring for any hardness dependent metals contained among the CTR pollutants.

[7] The samples tested for the full set of CTR pollutants shall commence during 2013 or during the next discharge event if no discharge occurs in 2013.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
			through 2017	Methods

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Testing

The Discharger shall conduct acute whole effluent toxicity testing (WET) to determine compliance with the effluent limitation for acute toxicity established by section IV.A.1 of the Order.

Test Frequency. The Discharger shall conduct acute WET testing in accordance with the schedule established by this MRP, as summarized in Table E-3, above.

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

b. **Accelerated Monitoring.** If the result of any acute toxicity test fails to meet the single test minimum limitation (70 percent survival), and the testing meets all test acceptability criteria, the Discharger shall take two more samples, one within 14 days and one within 21 days following receipt of the initial sample result. If any one of the additional samples do not comply with the three sample median minimum limitation (90 percent survival), the Discharger shall initiate a Toxicity Reduction Evaluation (TRE) in accordance with section VI.C.2.a.ii of the Order. If the two additional samples are in compliance with the acute toxicity requirement and testing meets all test acceptability criteria, then a TRE will not be required. If the discharge stops before additional samples can be collected, the Discharger shall contact the Executive Officer within 21 days with a plan to demonstrate compliance with the effluent limitation.

c. **Noncompliance.** Failure to conduct required toxicity tests or a TRE within the designated period shall result in appropriate enforcement action.

Sample Type. For 96-hour static renewal or 96-hour static non-renewal testing, the effluent samples shall be grab samples collected at Monitoring Location EFF-001.

[8] Detected CTR pollutants are those CTR Pollutants that have been previously detected in the effluent.

Ammonia, pH, and temperature shall be recorded at 24-hour intervals during the test and shall be reported with the toxicity test results.

Test Species. Test species for acute WET testing shall be an invertebrate, the water flea, *Ceriodaphnia dubia*, and a vertebrate, the rainbow trout, *Oncorhynchus mykiss*, for at least the first two suites of tests conducted within 12 months after the effective date of the Order. After this screening period, monitoring shall be conducted using the most sensitive species. At least one time every 5 years, the Discharger shall re-screen with the two species described above and continue routine monitoring with the most sensitive species.

Test Methods. The presence of acute toxicity shall be estimated as specified in Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (USEPA Report No. EPA-821-R-02-012, 5th edition or subsequent editions), or other methods approved by the Executive Officer.

Test procedures related to pH control, sample filtration, aeration, temperature control and sample dechlorination shall be performed in accordance with the USEPA method and fully explained and justified in each acute toxicity report submitted to the Regional Water Board. The control of pH in acute toxicity tests is allowed, provided the test pH is maintained at the effluent pH measured at the time of sample collection, and the control of pH is done in a manner that has the least influence on the test water chemistry and on the toxicity of other pH sensitive materials such as some heavy metals, sulfide and cyanide.

a. **Test Dilutions.** The acute toxicity test shall be conducted using 100 percent effluent collected at Monitoring Location EFF-001.

b. **Notification.** The Discharger shall notify the Regional Water Board in writing within 14 days after the receipt of test results exceeding the acute toxicity effluent limitation. The notification will describe actions the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by this Order, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

c. **Reporting.** Test results for acute toxicity tests shall be reported according to section 12 (Report Preparation) of *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* or in an equivalent format that clearly demonstrates that the Discharger is in compliance with effluent limitations, and other permit requirements.

d. Ammonia Toxicity. The acute toxicity test shall be conducted without modifications to eliminate ammonia toxicity.

B. Chronic Toxicity Testing

The Discharger shall conduct chronic toxicity testing to demonstrate compliance with the Basin Plan's water quality objective for toxicity. The Discharger shall meet the following chronic toxicity testing requirements:

Test Frequency. The Discharger shall conduct chronic WET testing in accordance with the schedule established by this MRP, as summarized in Table E-3, above, when discharging to surface water.

a. **Test Failure.** If either the reference toxicant test or the chronic toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger shall re-sample and re-test as soon as possible, not to exceed 14 days following notification of test failure.

b. **Accelerated Monitoring Requirements.** If the result of any chronic toxicity test exceeds the chronic toxicity monitoring trigger of 1.0 TUc as specified in section VI.C.2.a. of the Order, and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring. Accelerated monitoring shall consist of four additional effluent samples – with one test conducted approximately[9] every week over a 4 week period. Testing shall commence within 14 days of receipt of initial sample results which indicated an exceedance of the chronic toxicity trigger. If the discharge will cease before the additional samples can be collected, the Discharger shall contact the Executive Officer within 21 days with a plan to address elevated levels of chronic toxicity in effluent and/or receiving water. The following protocol shall be used for accelerated monitoring and TRE implementation:

> If the results of four consecutive accelerated monitoring tests do not exceed the chronic toxicity trigger of 1.0 TUc, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring. However, if there is adequate evidence of a pattern of effluent toxicity, the Regional Water Board's Executive Officer may require that the Discharger initiate a TRE.
>
> If the source(s) of the toxicity is easily identified (i.e. temporary plant upset), the Discharger shall make necessary corrections to the facility

[9] This accelerated monitoring frequency may be modified slightly to accommodate sample or testing organism issues provided an allowance for such a modification is made within the TRE.

and shall continue accelerated monitoring until four (4) consecutive accelerated tests do not exceed the monitoring "trigger." Upon confirmation that the chronic toxicity has been removed, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring.

If the result of any accelerated toxicity test exceeds an effluent limitation or monitoring trigger, the Discharger shall cease accelerated monitoring and, within thirty (30) days of the date of completion of the accelerated monitoring test, initiate the TRE Workplan developed in accordance with Section VI.C.2.a.ii of the Order to investigate the cause(s) and identify corrective actions to reduce or eliminate the chronic toxicity. Within thirty (30) days of completing the TRE Workplan implementation, the Discharger shall submit a report to the Regional Water Board including, at a minimum:

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

(b) Specific actions the Discharger took to mitigate the impact of the discharge and prevent the recurrence of toxicity;

(c) Recommendations for further actions to mitigate continued toxicity, if needed; and

(d) A schedule for implementation of recommended actions.

c. **Noncompliance.** Failure to conduct required toxicity tests or a TRE within the designated period shall result in the establishment of effluent limitations for chronic toxicity or appropriate enforcement action.

Sample Type. Effluent samples from Monitoring Location EFF-001 shall be grab samples. For toxicity tests conducted on-site and requiring renewals, grab samples collected on consecutive days are required.

Test Species. Test species for chronic WET testing shall be a vertebrate, the fathead minnow, *Pimephales promelas* (larval survival and growth), an invertebrate, the water flea, *Ceriodaphnia dubia* (survival and reproduction test), and a plant, the green algae, *Selanastrum capricornutum* (growth test). Initially, the Discharger is required to determine the most sensitive test species and then may monitor the discharge for chronic toxicity using that species annually for the remainder of the term of this Order.

Test Methods. The presence of chronic toxicity shall be estimated as specified in USEPA's Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms (USEPA Report No. EPA-821-R-02-013, or

subsequent editions).

Test procedures related to pH control, sample filtration, aeration, temperature control and sample dechlorination shall be performed in accordance with the USEPA method and fully explained and justified in each acute toxicity report submitted to the Regional Water Board. The control of pH in chronic toxicity tests is allowed, provided the test pH is maintained at the pH of the receiving water measured at the time of sample collection, and the control of pH is done in a manner that has the least influence on the test water chemistry and on the toxicity of other pH sensitive materials such as some heavy metals, sulfide and cyanide.

Test Dilutions. The chronic toxicity test shall be conducted using a series of at least five dilutions and a control. The series shall consist of the following dilution series: 12.5, 25, 50, 75, and 100 percent, and a control. Control and dilution water shall be receiving water collected at an appropriate location upstream of the discharge point. Laboratory water may be substituted for receiving water, as described in the USEPA test methods manual, upon approval by the Executive Officer. If the dilution water used is different from the culture water, a second control using culture water shall be used.

Reference Toxicant. If organisms are not cultured in-house, concurrent testing with a reference toxicant shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests also shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc.).

Notification. The Discharger shall notify the Regional Water Board in writing within 14 days after the receipt of test results that indicate an exceedance of the monitoring trigger for chronic toxicity during regular or accelerated monitoring.

Ammonia Toxicity. The chronic toxicity test shall be conducted without modifications to eliminate ammonia toxicity.

Chronic Toxicity Reporting

Routine Reporting. Test results for chronic WET tests shall be reported according to the appropriate chronic guidance manual and this Monitoring and Reporting Program and shall be attached to the self-monitoring report. Test results shall include, at a minimum, for each test:

a. sample date(s)
b. test initiation date
c. test species

d. end point values for each dilution (e.g., number of young, growth rate, percent survival)

e. NOEC value(s) in percent effluent

f. IC15, IC25, IC40, and IC50 values (or EC15, EC25…etc.) in percent effluent

g. TUc values (100/NOEC)

h. Mean percent mortality (±s.d.) after 96 hours in 100 percent effluent (if applicable)

i. NOEC and LOEC values for reference toxicant test(s)

j. IC50 or EC50 value(s) for reference toxicant test(s)

k. Available water quality measurements for each test (e.g., pH, DO, temperature, conductivity, hardness, salinity, ammonia)

l. Statistical methods used to calculate endpoints.

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

Quality Assurance Reporting. Because the permit requires sublethal hypothesis testing endpoints from methods 1000.0, 1002.0, and 1003.0 in the test methods manual titled Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA-821-R-02-013, 2002), with-in test variability must be reviewed for acceptability and variability criteria (upper and lower PMSD bounds) must be applied, as directed under section 10.2.8 – Test Variability of the test methods manual. Under section 10.2.8, the calculated PMSD for both reference toxicant test and effluent toxicity test results must be compared with the upper and lower PMSD bounds variability criteria specified in Table 6 – Variability Criteria (Upper and Lower PMSD Bounds) for Sublethal Hypothesis Testing Endpoints Submitted Under NPDES Permits, following the review criteria in paragraphs 10.2.8.2.1 through 10.2.8.2.5 of the test methods manual. Based on this review, only accepted effluent toxicity test results shall be reported.

Compliance Summary. The monthly discharger self-monitoring reports shall contain an updated chronology of chronic toxicity test results expressed in TUc, and organized by test species, type of test (survival, growth or reproduction), and monitoring frequency (routine, accelerated, or TRE). The final report shall clearly demonstrate that the Discharger is in compliance with effluent limitations or other permit requirements.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECLAMATION MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. Monitoring Locations RSW-001, RSW-002, etc.

1. The Discharger shall monitor the freshwater wetland at Monitoring Locations RSW-001, RSW-002, etc. concurrently with the effluent according to the minimum sampling frequency prescribed in Table E-4. Monitoring at Monitoring Location RSW-001, RSW-002, etc. shall be conducted as follows:

Table E-4. Receiving Water Monitoring Requirements – Freshwater Wetland

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method[1]
Dissolved Oxygen	mg/L	Grab	Monthly	Standard Methods
pH	standard units	Grab	Monthly	Standard Methods
Color	Color Units	Grab	Monthly	Standard Methods
Temperature	°F or °C	Grab	Monthly	Standard Methods
Total Suspended Solids	mg/L	Grab	Monthly	Standard Methods
Settleable Solids	mL/L-hr	Grab	Monthly	Standard Methods
Turbidity	NTU	Grab	Monthly	Standard Methods
Hardness, Total (as $CaCO_3$)[4]	mg/L	Grab	Quarterly	Standard Methods
All CTR Pollutants[5,6]	µg/L	Grab	1x/5years[7]	Standard Methods
Detected CTR Pollutants[8]	µg/L	Grab	Annually	Standard Methods

IX. OTHER MONITORING REQUIREMENTS – NOT APPLICABLE

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. Schedules of Compliance. If applicable, the Discharger shall submit all reports and documentation required by compliance schedules that are established by this Order. Such reports and documentation shall be

submitted to the Regional Water Board on or before each compliance date established by this Order. If noncompliance is reported, the Discharger shall describe the reasons for noncompliance and a specific date when compliance will be achieved. The Discharger shall notify the Regional Water Board when it returns to compliance with applicable compliance dates established by schedules of compliance.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table E-5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	First day of second calendar month following month of sampling
Daily	Permit effective date	Midnight through 11:59 PM or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	First day of second calendar month following month of sampling
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following month of sampling

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	First day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January through March April through June July through September October through December	First day of second calendar month following end of quarter
Annually	January 1 following (or on) permit effective date	January 1 through December 31	March 1, each year
1x/5years	During first discharge following permit effective date	All	First day of second calendar month following month of sampling

Reporting Protocols. The Discharger shall report with each sample result the applicable reported Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR 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 reported ML 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 as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

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

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

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 reported data shall include calculation of all effluent limitations that require averaging, taking of a median, or other computation. 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. During periods of land discharge and/or reclamation discharge, the reports shall certify “land discharge” and/or “reclamation discharge”.

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify:

   Facility name and address;

   WDID number;

   Applicable period of monitoring and reporting;

   Violations of the WDRs (identified violations must include a description of the requirement that was violated and a description of the violation);

   Corrective actions taken or planned; and

   The proposed time schedule for corrective actions.

c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

   Regional Water Quality Control Board
   North Coast Region
   5550 Skylane Blvd., Suite A
   Santa Rosa, CA 95403

C. Discharge Monitoring Reports (DMRs) – Not Applicable

D. Other Reports

1. The Discharger shall report the results of any special studies, acute and chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – VI.C.2 and 3 of this Order. The Discharger shall submit reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date in compliance with SMR reporting requirements described in subsection X.B.5 above.

2. Annual Report. The Discharger shall submit an Annual Report to the Regional Water Board for each calendar year. The report shall be submitted by March 1st of the following year. The report shall, at a minimum, include the following:

a. Both tabular and, where appropriate, graphical summaries of the monitoring data and records of woody material removal from Basin 2 and Ditch 8 from the previous year. If the Discharger monitors any pollutant more frequently than required by this Order, using test procedures approved under title 40, section 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and report of the data submitted SMR.

b. A comprehensive discussion of the facility's compliance (or lack thereof) with all effluent limitations and other requirements of this Order, and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with this Order.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes 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

WDID	1B83065OHUM
Discharger	Sierra Pacific Industries
Name of Facility	Arcata Division Sawmill
Facility Address	2593 New Navy Base Road
	Arcata, CA 95521
	Humboldt County
Facility Contact, Title and Phone	Jerry Kelley, Division Manager, (707) 443-3111
Authorized Person to Sign and Submit Reports	Jerry Kelley, Division Manager, (707) 443-3111
Mailing Address	P.O. Box 1189
	Arcata, CA 95518
	Humboldt County
Billing Address	Same as Mailing Address
Type of Facility	Sawmill (SIC code 2421)
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	A
Pretreatment Program	Not Applicable
Reclamation Requirements	Not Applicable
Facility Permitted Log Deck Sprinkle Flow	0.6 million gallons per day (mgd)
Facility Design Treatment Capacity	5.1 mgd
Watershed	Eureka Plain
Receiving Water	Freshwater wetland, tributary to the Mad River Slough and Humboldt Bay
Receiving Water Type	Freshwater Wetland

A. Sierra Pacific Industries (hereinafter Discharger) is the owner and operator of the Arcata Division Sawmill (hereinafter Facility).

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

B. The Facility discharges log deck sprinkle water and storm water from the log yard, which commingle and are described as process water in this Order, to a freshwater wetland, a water of the United States, and was previously regulated by Order No. R1-2006-0027 which was adopted on May 17, 2006. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit are adopted pursuant to this Order.

C. The Discharger filed a Report of Waste Discharge and submitted an application for renewal of its WDRs and NPDES permit on November 11, 2010. The permit application was deemed complete on January 10, 2012.

II. FACILITY DESCRIPTION

The Discharger owns and operates a large-log sawmill that manufactures framing lumber, select high grade and industrial lumber, and Douglas Fir timbers in Arcata, CA. The Facility consists of a paved log yard, sawmill, planer mill with a chemical application process for wood surface protection, debarker, sorter, dry kiln, fuel storage areas, and equipment maintenance areas. As part of the Discharger's operations at the Facility, water is applied via sprinklers to logs that are stacked to form log decks within a portion of the Facility known as the log yard, which results in the generation of log yard runoff. Process water runoff from the log yard flows either west into a sandy open channel on the northwest portion of the Facility called Ditch 8, or north into the eastern arm of an asphalt-paved collection swale located north of the log yard. During saturated ground conditions when sprinkling is continuous and/or during significant storm events, the water exceeds the capacity of Ditch 8 and water from Ditch 8 flows through an inlet screen into the western arm of the asphalt-paved collection swale. Storm water that falls on the log yard area comingles with the sprinkle water and the combinded flow is cumulatively described as process water for purposes of this Order. Process water in both of the collection swales flows into a concrete-lined basin, Basin 1. Water from Basin 1 flows via a culvert into an unlined, vegetated basin called Basin 2. Water from Basin 2 flows into a freshwater wetland, a water of the United States located within the Eureka Plain hydrologic unit. This Order recognizes this freshwater wetland as a receiving water in conformance

with prior regulatory decisions reached by other agencies. This freshwater wetland is not a freshwater impoundment, a coastal stream, nor a natural drainageway flowing directly to the ocean in the context of the *Water Quality Control Plan for the North Coast Region* (Basin Plan). The freshwater wetland is tributary to Mad River Slough, and Humboldt Bay. The freshwater wetland is not tributary to any impoundment or any coastal stream or natural drainageway flowing directly to the Pacific Ocean. Log deck sprinkler water and commingled storm water is the only process water produced at the Facility that discharges to the freshwater wetland.

On March 13, 1992, the State Water Resources Control Board (State Water Board) approved the Discharger's Notice of Intent to Comply with the terms of the General Permit to Discharge Storm Water Associated with Industrial Activity (WQ Order No. 97-03-DWQ, hereinafter the General Industrial Storm water Permit). All other storm water discharges from other portions of the Facility that do not commingle with wet decking process water and associated monitoring are authorized under the General Industrial Storm Water Permit.

A. Description of Process Water and Solids Treatment or Controls

Log deck watering operations involve pumping groundwater from an onsite water supply well to a series of sprinklers used to apply moisture to logs up to 24 hours per day at a rate of 600,000 gallons per day (gpd). Process water runoff from the log yard drains to either an open, sandy channel (Ditch 8) on the west end of the yard, or north into the eastern arm of an asphalt paved collection swale. Ditch 8 is used as a linear retention basin for collected water prior to the water entering the western arm of the asphalt-paved collection swale. Treatment of water within Ditch 8 includes periodic removal of floating materials, such as bark and other woody debris, and settling of finer material. The material that accumulates by settling at the bottom of Ditch 8 is removed periodically in conjunction with maintenance of the ditch. Some of the water that drains into Ditch 8 infiltrates; however, during saturated ground conditions when sprinkling is continuous and/or during significant storm events, the water exceeds the capacity of Ditch 8. Under these conditions, water in Ditch 8 flows through an inlet screen and into the western arm of the asphalt-paved collection swale.

Process water in both of the collection swales flows into a concrete-lined basin, Basin 1. Process water treatment in Basin 1 includes periodic removal of floating material and the settling of finer materials. Settled materials collected within Basin 1 are removed on a periodic basis coinciding with other scheduled Basin 1 maintenance activities. Water from Basin 1 flows into a culvert fitted with a baffled riser inlet capable of capturing floating material. The culvert conveys water to an unlined, vegetated basin, Basin 2, which is intended to provide sufficient residence time and quiescent conditions capable of settling suspended

sediment. Process water from Basin 2 discharges to a freshwater wetland at Discharge Point No. 001 through a culvert.

Woody material that settles in Ditch 8 is removed with a small excavator or by hand raking three to four times per year after the ditch has been allowed to dry out. In addition, floating woody material in Ditch 8 is periodically collected with a skimmer device attached to a pole.

The material that settles in Basin 1 is collected along with any stored water in a vacuum trailer approximately monthly. The vacuumed material consists primarily of water, with up to 0.5 cubic yards of solids. In addition, floating woody material in Basin 1 is periodically collected with a skimmer device attached to a pole.

Woody material removed from Ditch 8 will be placed on asphalt pavement to the east of the eastern collection swale where water contained within the solids will drain into Basin 1. Water and solids removed from Basin 1 will be placed on asphalt pavement within the drainage area of Ditch 8 away from the edge of the ditch, so that the solids will be retained by the logs and woody material on the log yard while the water drains to Ditch 8. After the woody material generated from the Ditch 8 and Basin 1 cleaning is sufficiently dewatered, the material is eventually mixed into the bark at the daily bark accumulation area on the east side of the log yard or added into the bark bin at the chipper. Any collected woody material is a marketable byproduct that is either used on site as hog fuel in the boiler or sold as hog fuel for use at other facilities. In addition, the woody material has been sold to Sun Valley Floral Farms as soil amendment in the past and may be sold to them or other interested parties in the future.

B. Discharge Points and Receiving Waters

Overflow from Basin 2 discharges to the freshwater wetland, a tributary to Mad River Slough and a water of the United States, at 40° 52’ 9.37” N latitude, 124° 9’ 13.68” W longitude. The area now covered by the freshwater wetland was previously hay pasture while the Discharger stored logs in the adjacent Mad River Slough. The area was historically a wetland which had been subject to agricultural activities. The current freshwater wetland was excavated within existing wetlands around 1970 when sprinkled log storage south of the former pasture replaced floating log storage in Mad River Slough. Consistent with Order No. R1-2006-0027, this Order recognizes the discharge point into the freshwater wetland as the compliance point for effluent limitations and the monitoring locations within the freshwater wetland as the compliance points for receiving water limitations.

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

1. Effluent limitations contained in Order No. R1-2006-0027 for discharges from Discharge Point No. 001 (Monitoring Location EFF-001) and representative monitoring data from the term of Order No. R1-2006-0027 are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitations		Monitoring Data (November 2008–February 2011)[1]	
		Average Monthly	Maximum Daily	Average Monthly	Maximum Daily
Acute Toxicity	% Survival	--	[2]	--	0[3]/0[4]
Debris	--	--	[5]	--	--
pH	standard units	--	6.0 – 9.0	--	6.7 – 7.97

D. Compliance Summary

Between November 2008 and February 2011, the Discharger did not report any exceedances of their instantaneous minimum or maximum effluent limitations for pH. The Discharger reported four exceedances of the acute toxicity limitation for the minimum percent survival for any one bioassay and one exceedance of the acute toxicity limitation for the median percent survival for any three consecutive bioassays. The Regional Water Quality Control Board (Regional Water Board)

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[1] Although Order No. R1-2006-0027 was issued in May 2006, the Discharger did not commence discharges from the sprinkled log deck until November 2008; therefore, monitoring data in this table represents data collected from November 2008 through February 2011.

[2] There shall be no acute toxicity in the effluent. The Permittee will be considered in compliance with this limitation when the survival of aquatic organisms in a 96-hour bioassay of undiluted waste complies with the following:

a. Minimum for any one bioassay: 70 percent survival.

b. Median for any three or more consecutive bioassays: at least 90 percent survival.

[3] Represents minimum observed percent survival.

[4] Represents minimum observed median percent survival for three or more consecutive bioassays.

[5] The discharge of debris is prohibited. 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.

has not yet adopted any enforcement actions against the Discharger for these permit violations.

E. Planned Changes

The Discharger has indicated that there are no expected changes to the Facility during the term of this Order.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section. This section provides supplemental information, where appropriate, for the plans, policies, and regulations relevant to the discharge.

A. Legal Authorities

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

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (CEQA), Public Resources Code sections 21100 through 21177.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Board adopted a 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. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. The Basin Plan, at page 2-18.00, establishes beneficial uses for groundwater as municipal and domestic supply, industrial service supply, industrial process supply, agricultural supply, and freshwater supply.

The Basin Plan, at page 2-17 and 2-18, describes that "the beneficial uses of wetlands may continue to be determined on a site-specific basis," and that "When field reconnaissance is conducted…the specific beneficial uses of wetlands will be identified as existing or potential on an individual basis." Staff has reviewed the available evidence[6] from the record and has determined that it is sufficient to identify that the Navigation beneficial use (NAV) does not apply and the Municipal and Domestic Supply (MUN) beneficial use is potential to this freshwater wetland.

Municipal and Domestic Water Supply (MUN)

MUN applies to the freshwater wetland receiving waterbody as a potential beneficial use for the following three independent reasons:

a. MUN is identified as a potential beneficial use (P) for the category of waterbodies classified as Freshwater Wetlands, which characterizes the subject receiving water body.

b. MUN is identified as an existing beneficial use (E) for all groundwaters in the North Coast Region. According to the *Hydrologic Study of Vegetated Pond* (the subject receiving water body) by Geomatrix Consultants Inc.(2004) the water level in the subject receiving water body is "strongly influenced by surrounding groundwater levels." This study goes on to state that "groundwater levels in the Vegetated Pond area remain very shallow and are similar to the surface water level in the pond." Freshwater Wetlands are further identified as having the potential beneficial use (P) of Groundwater Recharge (GWR), which further supports the application of the existing MUN status of groundwaters for this freshwater wetland. Furthermore, the *Sources of Drinking Water* Policy, Resolution No. 88-63, resolves that "All surface and ground waters of the State are considered to be suitable, or potentially suitable, for municipal or domestic water supply and should be so designated by the Regional Boards…" with some exceptions, which are currently unsupported by evidence in the record. The conclusions of this hydrologic study and the resolution of the *Sources of Drinking Water* Policy indicate that the subject receiving water body would also have the existing beneficial use (E) of MUN. The Basin Plan states that "Existing uses cannot be removed or modified…," which

6 Botanical Survey of Proposed Development Sites at the SPI Arcata Mill Facility (Green, 2002); Biological Assessment Report (Environet, 2003); Staff Report (Coastal Commission, 2003); Hydrologic Study of Vegetated Pond (Geomatrix, 2004)

eliminates the possibility of performing a UAA on this receiving water body for MUN.

c. MUN is identified as E for Humboldt Bay to which the subject receiving water is tributary. The Basin Plan identifies that "The beneficial uses of any specifically identified water body generally apply to all its tributaries." This general application, also referred to as the *Tributary Rule*, further supports the application of MUN as an existing beneficial use for the subject receiving water body.

Navigation (NAV)

The NAV beneficial use is described in the Basin Plan as "Uses of water for shipping, travel, or other transportation by private, military or commercial vessels." The structural ecological components of this fen, including a peat layer and floating mats of vegetation, as described in the botanical survey (Green, 2002) would inherently impede navigation and is, therefore, sufficient information to determine there is no potential for this fen to have the NAV beneficial use.

Thus, beneficial uses applicable to the freshwater wetland and groundwater are as follows:

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Freshwater Wetland	Existing: • Wetland Habitat (WET) Potential: • Municipal and Domestic Water Supply (MUN) • Agricultural Supply (AGR) • Industrial Service Supply (IND) • Ground Water Recharge (GWR) • Freshwater Replenishment (FRSH) • Water Contact Recreation (REC-1) • Non-Contact Water Recreation (REC-2) • Commercial and Sport Fishing (COMM) • Warm Freshwater Habitat (WARM) • Cold Freshwater Habitat (COLD) • Wildlife Habitat (WILD) • Preservation of Rare, Threatened, or Endangered Species (RARE) • Migration of Aquatic Organisms (MIGR) • Spawning, Reproduction, and/or Early Development (SPWN) • Shellfish Harvesting (SHELL) • Estuarine Habitat (EST) • Aquaculture (AQUA) • Native American Culture (CUL) • Flood Peak Attenuation/Flood Water Storage (FLD) • Water Quality Enhancement (WQE)
--	Groundwater	Existing • Municipal and Domestic Supply (MUN) • Industrial Service Supply (IND) • Industrial Process Supply (PRO) • Agricultural Supply (AGR) • Freshwater Replenishment (FRSH)

In addition to the beneficial uses set out in the Basin Plan, there are several implementation plans that include actions intended to meet water quality objectives and protect beneficial uses of the North Coastal Basin. Requirements of this Order implement the Basin Plan.

National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA 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 February 13, 2001. These rules contain water quality criteria for priority pollutants.

State Implementation Policy. On March 2, 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 April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

Compliance Schedules and Interim Requirements. Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds one (1) year, the Order must include interim numeric limitations for that constituent or parameter.

> This Order does not include compliance schedules or interim effluent limitations.
>
> **Water Quality-Based Effluent Limitations.** Section 301(b) of the CWA and 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) mandates 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, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA 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

Technology-based Effluent Limitations (TBELs). Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations, 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 limitation guidelines (ELGs) for the Timber Products Processing Point Source Category in 40 CFR Part 429, which is divided into sixteen subcategories. Specifically, Subpart I (Wet Storage Subcategory) and Subpart K (Sawmills and Planing Mills Subcategory) are applicable. Any existing point source subject to these subparts shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT): there shall be no debris discharged and the pH shall be within the range of 6.0 to 9.0. This Order applies the instantaneous minimum and maximum pH TBELs of 6.0 and 9.0 standard units, respectively.

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 debris. Restrictions on these pollutants are discussed in section IV.B.2 of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this Order (specifically the addition of the beneficial

uses Water Quality Enhancement (WQE), Flood Peak Attenuation/Flood Water Storage (FLD), Wetland Habitat (WET), Native American Culture (CUL), and Subsistence Fishing (FISH), and the General Objective regarding antidegradation in the Basin Plan) were approved by USEPA on March 4, 2005 and are applicable water quality standards pursuant to section 131.21(c)(2). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (title 40, Code of Federal Regulations[7] section 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

Antidegradation Policy. 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 No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional 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 section 131.12 and State Water Board Resolution No. 68-16.

Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at section 122.44(l) prohibit 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. None of the limitations in this Order are less stringent than those in the previous permit.

Endangered Species Act. 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

[7] All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

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

Monitoring and Reporting Requirements. Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the Water Code authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.

Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in this Fact Sheet.

Provisions and Requirements Implementing State Law. The provisions/requirements in section VI.C.2.b of this Order 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.

Notification of Interested Parties. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in this Fact Sheet.

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

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

Section 303(d) of the federal CWA requires states to identify waterbodies that do not meet water quality standards and are not supporting their beneficial uses after implementation of technology-based effluent limitations on point sources. Each state must submit an updated list, the 303(d) List of Impaired Waterbodies, to USEPA by April of each even numbered year. In addition to identifying the waterbodies that are not supporting beneficial uses, the 303(d) list also identifies the pollutant or stressor causing impairment and establishes a schedule for

developing a control plan to address the impairment. Total maximum daily loads (TMDLs) may be developed for 303(d) listed pollutant and water body contaminants that establish the maximum quantity of a given pollutant that can be added to a water body from all sources without exceeding the applicable water quality standard for that pollutant and determine wasteload allocations (the portion of a TMDL allocated to existing and future point sources) for point sources and load allocations (the portion of a TMDL attributed to existing and future nonpoint sources) for nonpoint sources. The freshwater wetland and Mad River Slough are tributary to Humboldt Bay, which is listed on the 2010 303(d) list as impaired for dioxins and polychlorinated biphenyls (PCBs). Effluent and receiving water data for dioxin congeners were all nondetect and no reasonable potential was found to justify establishment of dioxin effluent limitations. Likewise, effluent data for PCBs were all non-detect and no reasonable potential was found to justify PCB effluent limitations in this Order.

E. Other Plans, Policies, and Regulations

1. **Title 27, California Code of Regulations (CCR), section 20005 et seq. (hereafter Title 27).** Some discharges of wastewater to land are exempt from the requirements of Title 27, CCR, based on section 20090 et seq. Title 27 CCR 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. This Order serves as WDRs for the discharge and the discharge does not need to be managed as hazardous waste. Basin 2 is an unlined, vegetated pond, and a determination by the Regional Water Board must be made whether the facilities meet the exemptions from Title 27.

   In order to qualify for an exemption from Title 27 under section 20090(b), the Discharger must demonstrate compliance with the Basin Plan, which includes meeting best practicable treatment or control (BPTC) and complying with water quality objectives for groundwater. Groundwater monitoring data has not been obtained to determine whether any attenuation beneath Basin 2 has occurred; however, the Discharger has conducted effluent monitoring for priority pollutants that did not indicate reasonable potential to cause or contribute to an exceedance of water quality objectives for groundwater contained in Table 3-2 of the Basin Plan or the MCLs in Title 22. Based on this data, the Regional Water Board finds that the discharge to groundwater from Basin 2 does not have reasonable potential to cause or contribute to an exceedance of water quality objectives for groundwater and the discharge is in compliance with the Basin Plan. Therefore, the discharge meets the pre-conditions for an exemption to the requirements of Title 27 pursuant to Title 27 CCR section 20090(b). In order to verify this finding, Special Provision VI.C.2.b requires the Discharger to conduct a Groundwater Impact Study.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

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

A. Discharge Prohibitions

1. **Discharge Prohibition III.A.** The discharge of any waste not disclosed by the Discharger or not within the reasonable contemplation of the Regional Water Board is prohibited.

   This prohibition is based on the Basin Plan, the previous permit, and State Water Board Order WQO No. 2002-0012 regarding the petition of WDRs Order No. 01-072 for the East Bay Municipal Utility District and Bay Area Clean Water Agencies. In State Water Board Order No. WQO 2002-0012, the State Water Board found that this prohibition is acceptable in orders, but should be interpreted to apply only to constituents that are either not disclosed by the Discharger, or are not reasonably anticipated to be present in the discharge but have not been disclosed by the Discharger. It specifically does not apply to constituents in the discharge that do not have "reasonable potential" to exceed water quality objectives.

   The State Water Board has stated that the only pollutants not covered by this prohibition are those which were "*disclosed to the Ordering and … can be reasonably contemplated*." [In re the Petition of East Bay Municipal Utilities District et al., (State Water Board, 2002) Order No. WQO 2002-0012, p. 24] In that Order, the State Water Board cited a case which held the Discharger is liable for the discharge of pollutants "*not within the reasonable contemplation of the permitting authority …<u>.whether spills or otherwise</u>…*" [*Piney Run Preservation Assn. v. County Commissioners of Carroll County, Maryland* (4th Cir. 2001) 268 F. 3d 255, 268.] Thus the State Water Board authority provides that, to be permissible, the constituent discharged (1) must have been disclosed by the Discharger and (2) can be reasonably contemplated by the Regional Water Board.

Whether or not the Discharger reasonably contemplates the discharge of a constituent is not relevant. What matters is whether the Discharger disclosed the constituent to the Regional Water Board or whether the presence of the pollutant in the discharge can otherwise be reasonably contemplated by the Regional Water Board at the time of Order adoption.

2. **Discharge Prohibition III.B.** Creation of pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code is prohibited.

   This prohibition is based on section 13050 of the Water Code, and has been retained from Order No. R1-2006-0027.

3. **Discharge Prohibition III.C.** The discharge of domestic waste, treated or untreated, to surface waters is prohibited.

   This prohibition is based on the Basin Plan policy on the control of water quality with respect to on-site waste treatment and disposal practices, and has been retained from Order No. R1-2006-0027.

4. **Discharge Prohibition III.D**. The discharge of waste at any point not described in Finding II of this Fact Sheet. or authorized by any State Water Board or other Regional Water Board permit is prohibited.

   This is a general prohibition that allows the Discharger to discharge waste only in accordance with waste discharge requirements. It is based on Sections 301 and 402 of the federal CWA and CWC Section 13263. This prohibition has been retained from Order No. R1-2006-0027.

5. **Discharge Prohibition III.E**. The discharge of process wastewater from bark removal (other than hydraulic barking as defined in 40 CFR 429.11), sawing, resawing, edging, trimming, planing and machining to surface water is prohibited.

   The Discharger operates a “sawmills and planing mill” operation, which is subject to Effluent Limitations Guidelines and Standards for the Sawmills and Planing Mills Subcategory of the Timber Products Processing Point Source Category (40 CFR Part 429, Subpart K). This subpart applies to discharges to waters of the United States from the timber products processing procedures that include all or part of the following operations: bark removal (other than hydraulic barking as defined in 40 CFR 429.11), sawing, resawing, edging, trimming, planing and machining. Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of

effluent reduction attainable by the application of the best practicable control technology (BPT): There shall be no discharge of process wastewater pollutants into navigable waters. Therefore, this Order prohibits discharges of process wastewater from these activities to surface water.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at 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 Wet Storage Subcategory and the Sawmills and Planing Mills Subcategory of the Timber Products Processing Point Source Category (40 CFR Part 429, Subparts I and K).

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

- BPT represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

- 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.

- Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including five-day biochemical oxygen demand (BOD), total suspended solids (TSS), fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

- 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 USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and section 125.3 of the Code of Federal Regulations 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 permit writer must consider specific factors outlined in section 125.3.

2. Applicable Technology-Based Effluent Limitations

The Discharger operates a "wet deck" log storage operation and a "sawmills and planing mills" operation. Therefore, effluent limitations established in the Timber Products Processing Point Source Category (40 CFR Part 429) are applicable to the discharge. Specifically, Subpart I (Wet Storage Subcategory) and Subpart K (Sawmills and Planing Mills Subcategory) apply.

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to these subparts must achieve the effluent limitations representing the degree of effluent reduction attainable by the application of BPT. The following effluent limitations apply to Discharge Point No. 001:

a. **Wet Storage.** There shall be no debris discharged and the pH shall be within the range of 6.0 to 9.0 at all times. "Debris" means 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.

b. **Sawmills and Planing Mills.** There shall be no discharge of process wastewater pollutants into navigable waters. As discussed in section IV.A.6 of this Fact Sheet, this Order prohibits discharges of process water from sawmill and planing mill activities.

Summary of Technology-based Effluent Limitations
Discharge Point No. 001

Table F-4. Summary of Technology-based Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Debris	--	--	--	--	[8]
pH	standard units	--	--	6.0	9.0

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and 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. This Order contains requirements that are necessary to meet applicable water quality standards.

Section 122.44(d)(1)(i) mandates 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. A reasonable potential analysis (RPA) was conducted and the analysis did not demonstrate that reasonable potential existed for the discharge to cause or contribute to exceedances of any water quality standard applicable to the receiving water.

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) USEPA 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 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.

[8] There shall be no debris (as defined in Attachment A) discharged.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

a. Beneficial Uses. Beneficial use designations for receiving waters for discharges from the Facility are presented in section III.C.1 of this Fact Sheet. All beneficial uses in Table F-3, except NAV and MUN, come from the designation for freshwater wetlands from Table 2-1 of the Basin Plan. NAV and MUN have been identified on a site-specific basis for this facility. NAV is not potential, but MUN has been identified as a potential beneficial use.

b. Basin Plan Water Quality Objectives. In addition to the specific water quality objectives indicated above, the Basin Plan contains narrative objectives for color, tastes and odors, floating material, suspended material, settleable material, oil and grease, biostimulatory substances, sediment, turbidity, pH, dissolved oxygen, bacteria, temperature, toxicity, pesticides, chemical constituents, and radioactivity that apply to inland surface waters, enclosed bays, and estuaries. For waters designated for use as domestic or municipal supply (MUN), the Basin Plan establishes as applicable water quality criteria the Maximum Contaminant Levels (MCLs) established by the California Department of Public Health for the protection of public water supplies at title 22 of the California Code of Regulations section 64431 (Inorganic Chemicals) and section 64444 (Organic Chemicals).

c. SIP, CTR and NTR. Water quality criteria and objectives applicable to this receiving water are established by the CTR, established by the USEPA at section 131.38; and the NTR, established by the USEPA at section 131.36. Criteria for most of the 126 priority pollutants are contained within the CTR and the NTR.

d. Aquatic life freshwater and saltwater criteria are identified as criterion maximum concentrations (CMC) and criterion continuous concentrations (CCC). The CTR defines the CMC as the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects and the CCC as the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. The CMC is used to calculate an acute or 1-hour average numeric effluent limitation and the CCC is used to calculate a chronic or 4-day average numeric effluent limitation. Aquatic life freshwater criteria were used for the RPA.

Human health criteria are further identified as “water and organisms” and “organisms only.” “Water and organism” criteria are designed to address risks to human health from multiple exposure pathways. The criteria from

the “water and organisms” column of CTR were used for the RPA because this Order identifies that the receiving water, the freshwater wetland, has the potential beneficial use designation of MUN as described above in section III.C.1 of this Fact Sheet. Effluent limitations were not necessary for any constituents based on criteria for the protection of human health.

The SIP, which is described in section III.C.3 of the Fact Sheet, includes procedures for determining the need for, and the calculation of WQBELs and requires dischargers to submit data sufficient to do so.

At title 22, Division 4, Chapter 15 of the CCR, the California Department of Public Health (CDPH) has established MCLs for certain pollutants for the protection of drinking water. Chapter 3 of the Basin Plan establishes these MCLs as water quality objectives applicable to receiving waters with the beneficial use designation of municipal and domestic supply.

Attachment F-1 includes a summary of RPA results for all priority toxic pollutants, with water quality criteria/objectives that are applicable to the freshwater wetland.

3. Determining the Need for WQBELs

NPDES regulations at section 122.44 (d) require effluent limitations to control all pollutants which 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.

a. Non-Priority Pollutants

Toxicity. See section IV.C.5 below.

b. Priority Pollutants

The SIP establishes procedures to implement water quality criteria from the NTR and CTR and for priority, toxic pollutant objectives established in the Basin Plan. The implementation procedures of the SIP include methods to determine reasonable potential (for pollutants to cause or contribute to excursions above State water quality standards) and to establish numeric effluent limitations, if necessary, for those pollutants showing reasonable potential.

Section 1.3 of the SIP requires the Regional Water Board to use all available, valid, relevant, and representative upstream receiving water, effluent data, and information to conduct an RPA. In this Order, the Regional Water Board has used effluent monitoring generated from a

sampling event on November 3, 2008 for all of the CTR pollutants. Step 5 of section 1.3 of the SIP requires that ambient background data be used to conduct the RPA. However, receiving water data was not available in this instance. As described in section VI.E.1 of this Fact Sheet, this Order establishes receiving water monitoring at Monitoring Location RSW-001 to determine reasonable potential to cause or contribute to water quality criteria in the future.

Some freshwater water quality criteria are hardness-dependent; i.e., as hardness decreases, the toxicity of certain metals increases, and the applicable water quality criteria become correspondingly more stringent. One additional hardness sample was collected during the last permit term; however, the existing data from 2003 was more limiting. Therefore, the hardness-dependent water quality criteria were calculated using a receiving water hardness value of 136 mg/L as $CaCO_3$ obtained from a water sample collected on March 13, 2003 and used in Order No. R1-2006-0027 to calculate hardness dependent criteria.

To conduct the RPA, Regional Water Board staff identified the maximum effluent concentration (MEC) and maximum background (B) concentration for each priority, toxic pollutant from effluent and receiving water data provided by the Discharger, and compared this information to the most stringent applicable water quality criterion (C) for each pollutant with applicable water quality criteria from the NTR, CTR, and the Basin Plan. Section 1.3 of the SIP establishes three triggers for a finding of reasonable potential.

Trigger 1. If the MEC is greater than C, there is reasonable potential, and an effluent limitation is required.

Trigger 2. If B is greater than C, and the pollutant is detected in effluent (MEC > ND), there is reasonable potential, and an effluent limitation is required.

Trigger 3. After a review of other available and relevant information, a permit writer may decide that a WQBEL is required. Such additional information may include, but is not limited to: the facility type, the discharge type, solids loading analyses, lack of dilution, history of compliance problems, potential toxic impact of the discharge, fish tissue residue data, water quality and beneficial uses of the receiving water, CWA 303 (d) listing for the pollutant, and the presence of endangered or threatened species or their critical habitat.

c. Reasonable Potential Determination

Reasonable potential could not be determined for all pollutants, as there are not applicable water quality criteria for all pollutants. The RPA determined that there is either no reasonable potential or there was insufficient information to conclude affirmative reasonable potential for all of the 126 priority pollutants.

The following table summarizes the reasonable potential analysis for each priority pollutant that was reported in detectable concentrations in the effluent or the receiving water (detected values are indicated in bold type). The MECs, most stringent water quality objectives/water quality criteria (WQO/WQCs), and background concentrations (B) used in the RPA are presented, along with the RPA results (Yes or No and which trigger) for each toxic pollutant analyzed. No other pollutants with applicable, numeric water quality criteria from the NTR, CTR, and the Basin Plan were measured above detectable concentrations during the monitoring events conducted by the Discharger. Attachment F-1 to this Order summarizes the RPA for all 126 priority pollutants.

Table F-5. Summary of RPA Results

CTR #	Priority Pollutants	C or Most Stringent WQO/WQC (µg/L)	MEC or Minimum DL (µg/L)[9]	B or Minimum DL (µg/L)[9]	RPA Results[10]
1	Antimony	6	0.25	Not Available	No
2	Arsenic	10	51	Not Available	Ud
3	Beryllium	4	0.1	Not Available	No
4	Cadmium	3.1	0.054	Not Available	No
5b	Chromium VI	11	8.2	Not Available	No
6	Copper	106	9.8	Not Available	No
7	Lead	4.7	2.3	Not Available	No
9	Nickel	68	15	Not Available	No
10	Selenium	5.0	0.24	Not Available	No
11	Silver	6.9	0.028	Not Available	No
13	Zinc	155	48	Not Available	No

[9] The Maximum Effluent Concentration (MEC) or maximum background concentration (B) is the actual detected concentration unless it is preceded by "<", in which case the value shown is the method detection level as the analytical result was reported as not detected (ND).

[10] RPA Results:
= Yes, if MEC > WQO/WQC, or B > WQO/WQC and MEC is detected;
= No, if MEC and B are < WQO/WQC or all effluent data are undetected;
= Undetermined (Ud), if no CTR criteria have been promulgated or if more information is needed.

CTR #	Priority Pollutants	C or Most Stringent WQO/WQC (µg/L)	MEC or Minimum DL (µg/L)[9]	B or Minimum DL (µg/L)[9]	RPA Results[10]
16	2,3,7,8 TCDD	1.3E-08	<2.2E-07	Not Available	No

4. WQBEL Calculations

Because the RPA did not identify any toxic pollutants as having the reasonable potential to cause or contribute to exceedances of applicable water quality criteria, the Order does not establish WQBELs for toxic pollutants. The draft Order circulated for public comment included the technical mistakes of basing the RPA on an old, less stringent, criteria and on one data point not representing the MEC. The actual arsenic effluent concentrations are greater than the most stringent criterion, however, the data are limited to two samples, the results of which imply a wide distribution of effluent concentrations. There is no indication of whether the arsenic source is the onsite groundwater supply well or the wet decking process itself. Furthermore, the seasonal influence of rainwater on the arsenic discharge concentrations has not yet been determined. The limited data, the potentially wide distribution of the data, and the lack of source identification result in staff's conclusion that the RPA for arsenic is undetermined. Staff intends to issue an order pursuant to Water Code section 13267 requiring the Permittee to collect sufficient arsenic effluent and receiving water data to conclusively determine 1) whether the discharge has reasonable potential to exceed the most stringent water quality criteria, 2) the source of arsenic in the effluent, and 3) the distribution of arsenic concentrations seasonally. These new data will provide sufficient information, if necessary, to reopen this Order to issue arsenic effluent limitations with a time schedule for compliance, if appropriate.

Summary of Water Quality-based Effluent Limitations
Discharge Point No. 001

Table F-6. Summary of Water Quality-based Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Minimum Median of Three Consecutive Bioassays
Acute Toxicity	% Survival	--	--	70	--	90

5. Whole Effluent Toxicity (WET)

Effluent limitations for whole effluent, acute and chronic toxicity, protect the receiving water from the aggregate effect of a mixture of pollutants that may be present in effluent. There are two types of WET tests – acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic test is conducted over a longer period of time and may measure mortality, reproduction, and/or growth.

WET requirements are derived from the CWA and the Basin Plan. The Basin Plan establishes a narrative water quality objective for toxicity that states "*All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, or aquatic life*." Detrimental responses may include, but are not limited to, decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing Order contains acute toxicity limitations in accordance with the Basin Plan, which requires that average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests be at least 90 percent, with no single test having less than 70 percent survival. For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Discharger to conduct WET testing for acute and chronic toxicity, as specified in the MRP (Attachment E, section V).

In addition to the Basin Plan requirements, Section 4 of the SIP states that chronic toxicity effluent limitations are required in Orders for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. Based on annual chronic WET tests, the Discharger reported chronic toxicity to *Ceriodaphnia dubia* reproduction in one sample in October 2009. The following chronic WET tests in March 2010 and April 2010 did not indicate chronic toxicity to *Ceriodaphnia dubia*. Chronic toxicity monitoring conducted during the term of the previous permit produced measurements of 1 TUc or less. Based on the available information, Regional Water Board staff has determined that discharges from the Facility do not have the reasonable potential to cause or contribute to chronic toxicity in receiving waters.

a. Acute Aquatic Toxicity

Consistent with Order No. R1-2006-0027, this Order includes an effluent limitation for acute toxicity in accordance with the Basin Plan, which requires that the average survival of test organisms in undiluted effluent

for any three consecutive 96-hour bioassay tests be at least 90 percent, with no single test having less than 70 percent survival.

The Order also implements federal guidelines (Regions 9 and 10 Guidelines for Implementing Whole Effluent Toxicity Testing Programs) by requiring the Discharger to conduct acute toxicity tests on a fish species and on an invertebrate to determine the most sensitive species. According to the USEPA manual, *Methods for Estimating the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/600/4-90/-27F), the acceptable vertebrate species for the acute toxicity test are the fathead minnow, *Pimephales promelas* and the rainbow trout, *Oncorhynchus mykiss*. The acceptable invertebrate species for the acute toxicity test are the water flea, *Ceriodaphnia dubia*, *Daphnia magna*, and *D. pulex*.

This Order requires the two-suite testing as described above in the first year in order to identify the most sensitive species. Thereafter, the Discharger may continue testing in subsequent years using only the most sensitive species. Over the term of Order No. R1-2006-0027, the Discharger observed three exceedances of the acute toxicity limitation for the minimum of 70 percent survival for any one bioassay and two exceedances of the acute toxicity limitation for the minimum of 90 percent survival for any three or more consecutive bioassays.

b. Chronic Aquatic Toxicity

The SIP requires the use of short-term chronic toxicity tests to determine compliance with the narrative toxicity objectives for aquatic life in the Basin Plan. The SIP requires that the Discharger demonstrate the presence or absence of chronic toxicity using tests on the fathead minnow, *Pimephales promelas*, the water flea, *Ceriodaphnia dubia*, and the freshwater alga, *Selenastrum capricornutum*. The Discharger's chronic toxicity testing results collected during the term of Order No. R1-2006-0027 are summarized in the table below.

Table F-7. Chronic Toxicity Testing Summary Results

Date	Chronic Toxicity Test	Result (TUc)
4 March 2009	*Ceriodaphnia dubia* Survival	1.0
4 March 2009	*Ceriodaphnia dubia* Reproduction	>1.0
4 March 2009	*Pimephales promelas* Survival	1.0
4 March 2009	*Pimephales promelas* Growth	1.0
4 March 2009	*Selenastrum capricornutum* Growth	1.0
8 March 2010	*Ceriodaphnia dubia* Survival	1.0
8 March 2010	*Ceriodaphnia dubia* Reproduction	1.0

Date	Chronic Toxicity Test	Result (TUc)
12 April 2010	*Ceriodaphnia dubia* Survival	1.0
12 April 2010	*Ceriodaphnia dubia* Reproduction	1.0

A chronic toxicity effluent limitation has not been included in the Order because the collected data does not indicate that the effluent has reasonable potential to cause, or contribute to chronic toxicity in receiving waters. This Order specifies the use of a numeric trigger for accelerated monitoring and implementation of a Toxicity Reduction Evaluation (TRE) in the event that persistent toxicity is detected. Attachment E of this Order requires annual chronic WET monitoring for demonstration that the discharge does not have the potential to cause, or contribute to chronic toxicity in the receiving water.

Section V.C.1.g of the MRP requires TUc to be calculated as 100/NOEC, where NOEC is the no observed effect concentration, for purposes of compliance with the effluent limitation. Although the federal requirements may provide for flexibility in determining how to calculate TUc for compliance purposes (e.g., 100/NOEC, 100/IC25, 100/EC25), USEPA Region IX recommends that effluent limitations and triggers be based on the NOEC when the permit language and chronic toxicity testing methods incorporate important safeguards that improve the reliability of the NOEC. These safeguards include the use of a dilution series (testing of a series of effluent concentrations) to verify and quantify a dose-response relationship and a requirement to evaluate specific performance criteria in order to determine the sensitivity of each chronic toxicity test. The goal is to demonstrate that each test is sensitive enough to determine whether or not the effluent is toxic or not.

The use of 100/IC25 or 100/EC25 as methods for calculating chronic toxicity are point estimates that automatically allow for a 25 percent effect before calling an effluent toxic. The Basin Plan has a narrative objective for toxicity that requires that "all waters be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life." Allowance of a possible 25 percent effect would not meet the Basin Plan's narrative toxicity requirement. In addition, California has historically used the NOEC to regulate chronic toxicity for ocean discharges, thus it is fitting that the same method be used to regulate chronic toxicity in inland surface water discharges.

If sampling of the discharge demonstrates a pattern of toxicity exceeding the effluent limitation, the Discharger is required to initiate a TRE, in accordance with an approved TRE work plan to determine whether the

discharge is contributing chronic toxicity to the receiving water. Special Provision VI.C.2.a.ii requires the Discharger to submit to the Regional Water Board and maintain a TRE Work Plan for approval by the Executive Officer, to ensure the Discharger has a plan to immediately move forward with the initial tiers of a TRE, in the event effluent toxicity is encountered in the future. The provision includes requirements for TRE initiation if a pattern of toxicity is demonstrated.

D. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

2. Satisfaction of Antidegradation Policy

This Order is consistent with applicable federal and State antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated process water beyond that which was permitted to discharge in accordance with the previous Order.

3. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The terms of this Order meet the minimum federal technology-based effluent limitations for the Wet Storage Subcategory and Sawmills and Planing Mills Subcategory of the Timber Products Processing Point Source Category at 40 CFR Part 429, Subparts I and K. The technology-based effluent limitations consist of restrictions on debris. Restrictions on these pollutants are discussed in section IV.B in this Fact Sheet.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the SIP, which was approved by USEPA on May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30,

2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this Order (specifically the addition of the beneficial uses Water Quality Enhancement (WQE), Flood Peak Attenuation/Flood Water Storage (FLD), Wetland Habitat (WET), Native American Culture (CUL), and Subsistence Fishing (FISH)) and the General Objective regarding antidegradation) were approved by USEPA on, March 4, 2005, and are applicable water quality standards pursuant to section 131.21(c)(2). 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 No. 001

Table F-8. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations				Basis[11]
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Acute Toxicity	% Survival	--	--	70[12]/90[13]	--	BP
Debris	--	--	--	--	[14]	ELG
pH	standard units	--	--	6.0	9.0	ELG,BPJ

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Reclamation Specifications – Not Applicable

[11] BP – Based on water quality objectives contained in the Basin Plan.

ELG – Based on the effluent limitation guidelines for industrial dischargers contained in 40 CFR Part 429.

BPJ – Best Professional Judgment

[12] Minimum for any one bioassay.

[13] Median for any three or more consecutive bioassays. See also footnote 1 of this Order.

[14] There shall be no debris (as defined in Attachment A) discharged.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

CWA section 303(a-c) requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The Regional 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 biostimulatory substances, chemical constituents, color, floating material, oil and grease, pH, pesticides, sediment, settleable material, suspended material, tastes and odors, temperature, toxicity, and turbidity. The numeric receiving water limitation for pH is based on the general water quality objectives for inland surface waters, enclosed bays, and estuaries of the Basin Plan. This receiving water has the potential beneficial uses of COLD, WARM, and SPWN, which have more stringent requirements for pH and dissolved oxygen than those contained in this Order. Instead, staff is requiring the Permittee to perform a study outside of this permit to facilitate the site-specific identification of beneficial uses for this wetland. Upon completion of that beneficial use identification, staff may reopen the permit to include appropriate receiving water limitations.

The previous permit incompletely implemented the Basin Plan water quality objective for pH by only limiting the upper end of the receiving water pH to 8.5; instead, this permit implements the entire Basin Plan water quality objective for pH by also limiting the lower end of the pH to 6.5 and limiting any further decrease or increase to pH if natural background levels are outside of the range 6.5 to 8.5, respectively. This permit also includes a new receiving water limitation for temperature based on the water quality objective in the Basin Plan.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Facility.

A. Influent Monitoring

This Order retains flow monitoring of the log deck sprinkler feed from Order No. R1-2006-0027 to determine the timing amount of pollutants being discharged to surface waters.

B. Effluent Monitoring

Effluent monitoring requirements from Order No. R1-2006-0027 are retained for pH, acute toxicity, and chronic toxicity. Monitoring at Monitoring Location EFF-001 is required in order to demonstrate compliance with technology-based effluent limitations, demonstrate compliance with WQBELs, and demonstrate that the discharge does not pose reasonable potential for a pollutant to exceed any numeric or narrative water quality objectives. If the discharge to the freshwater wetland is found to contain levels of any pollutant that poses reasonable potential to exceed any numeric or narrative water quality objective, the Regional Water Board will establish WQBELs for that pollutant(s) for discharges to the freshwater wetland.

The following describes changes to the effluent and receiving water monitoring requirements from Order No. R1-2006-0027 established by this Order.

1. A new requirement for effluent flow monitoring has been established in this Order to characterize the flow from the Facility to the freshwater wetland.

2. A new effluent monitoring requirement for debris has been established in this Order to determine compliance with the effluent limitation for debris. The previous permit had the effluent limitation, but no monitoring to determine compliance.

3. New effluent monitoring requirements for dissolved oxygen, color, settleable solids, temperature, total suspended solids, and turbidity have been established in this Order to characterize the effluent and determine compliance with the applicable receiving water limitations, which reflect the Basin Plan water quality objectives.

4. New effluent monitoring requirement for tannins and lignins has been established in this Order to monitor this pollutant, which can contribute to aquatic toxicity and is known to be in the discharge.

5. A new requirement for effluent and receiving water hardness monitoring has been established in this Order. The toxicity of certain metals is hardness-dependent (i.e., as hardness decreases, metals toxicity increases). Although the SIP currently requires that receiving water hardness be used to calculate effluent limitations for hardness-based metals, the State Water Board is

currently evaluating evidence that more protective effluent limitations may be established utilizing the minimum effluent hardness for certain metals. The collection of effluent and receiving water hardness data will provide a data set to be utilized in the future for the establishment of some effluent limitations. Monitoring of hardness in the effluent is required to coincide with compliance monitoring for the hardness-dependent metals.

6. In accordance with Section 1.3 of the SIP, periodic monitoring is required for CTR priority pollutants for which criteria or objectives apply and for which no effluent limitations have been established. Order No. R1-2006-0027 required monitoring for priority pollutants once during the permit term. In order to provide sufficient monitoring to characterize the effluent and conduct a meaningful RPA during the next permit renewal, this Order requires one full set of priority pollutant sampling during the permit term and annual monitoring of those priority pollutants that have been detected in the effluent.

C. Whole Effluent Toxicity Testing Requirements

WET limitations and monitoring requirements are retained from the previous Order and are included in the Order to protect the receiving water quality from the aggregate effect of a mixture of pollutants in the effluent. Acute toxicity testing measures mortality in 100 percent effluent over a short test period and chronic toxicity testing is conducted over a longer time period and may measure mortality, reproduction, and/or growth. This Order includes an effluent limitation for acute toxicity and monitoring requirements for acute and chronic toxicity.

D. Land Discharge Monitoring Requirements – Not Applicable

E. Receiving Water Monitoring

1. Surface Water

Consistent with Order No. R1-2006-0027, this Order requires receiving water monitoring at Monitoring Location RSW-001, located at the outflow from the freshwater wetland to Mad River Slough upstream of tidal influence. Monitoring requirements from Order No. R1-2006-0027 for pH have been retained in this Order.

Monitoring for pH is necessary in order to assess compliance with the pH water quality objectives in the Basin Plan and the receiving water limitation contained in section V.A.2 of the Order.

The following receiving water monitoring requirements are newly established by this Order.

a. New receiving water monitoring locations RSW-002, etc. have been established in order to assess the conditions of the freshwater wetland and any impacts of the discharge.

b. Receiving water monitoring for dissolved oxygen is established in this Order to determine compliance with the numeric water quality objectives in the Basin Plan and the receiving water limitations in this Order.

c. Receiving water monitoring for color, temperature, total suspended solids, settleable solids, and turbidity are established in this Order to determine compliance with the narrative water quality objectives for these parameters in the Basin Plan and the receiving water limitations in this Order.

d. Because the toxicity of certain metals is hardness dependent (i.e., as hardness decreases, metal toxicity increases), monitoring of hardness in the receiving water is required. Monitoring of hardness shall coincide with the monitoring for hardness dependent metals and priority pollutants.

e. In accordance with Section 1.3 of the SIP, periodic monitoring is required for CTR priority pollutants for which criteria or objectives apply and for which no effluent limitations have been established. Order No. R1-2006-0027 did not require monitoring of CTR pollutants in the receiving water. However, in order to provide sufficient monitoring to characterize the background receiving water and conduct a meaningful RPA during the next permit renewal, this Order requires complete priority pollutant monitoring of the receiving water once per permit term and annual monitoring of those priority pollutants that have been detected in the effluent.

2. Groundwater – Not Applicable

F. Other Monitoring Requirements – Not Applicable

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

1. Federal Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D.

The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Section 122.41(a)(1) and (b) through (n) 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) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in 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).

Section IV.B.4 of Attachment D requires the individual(s) who perform the analyses to be included in records of monitoring information. This requirement comes directly from the federal regulations, but the Regional Water Board recognizes that the actual laboratory technicians are often not identified in laboratory reports when a third party laboratory is used. Including the relevant laboratory sheets with monitoring results and quality assurance/quality control data is sufficient for compliance with this Order.

Regional Water Board Standard Provisions

In addition to the Federal Standard Provisions (Attachment D), the Discharger shall comply with the Regional Water Board Standard Provisions provided in section VI.A.2 of the Order.

a. Order Provision VI.A.2.a identifies the State's enforcement authority under the Water Code, which is more stringent than the enforcement authority specified in the federal regulations [e.g. 40 CFR sections 122.41(j)(5) and (k)(2)].

b. Order Provision VI.A.2.b requires the Discharger to notify Regional Water Board staff, orally and in writing, in the event that the Discharger does not comply or will be unable to comply with any Order requirement that may result in a significant threat to human health or the environment. This provision requires the Discharger to make direct contact with a Regional Water Board staff person.

B. Monitoring and Reporting Program (MRP) Requirements

1. **Compliance.** The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.

2. **Alternative Monitoring Locations.** The Discharger may submit a proposal to monitor receiving water at locations different than receiving water location specified in section I of the MRP. The Executive Officer will inform the Discharger within 90 days after receipt of the proposal whether the alternative monitoring locations are acceptable.

C. Special Provisions

1. Reopener Provisions

a. Standard Revisions (Special Provisions VI.C.1.a). Conditions that necessitate a major modification of a permit are described in section 122.62, which include the following:

> When standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision. Therefore, if revisions of applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such revised standards.
>
> 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. **Reasonable Potential (Special Provisions VI.C.1.b).** This provision allows the Regional Water Board to modify, or revoke and reissue, this Order if present or future investigations demonstrate that the Discharger governed by this Permit is causing or contributing to excursions above any applicable priority pollutant criterion or objective or adversely impacting water quality and/or the beneficial uses of the receiving waters.

c. **Whole Effluent Toxicity (Special Provisions VI.C.1.c).** This Order requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity through a TRE. This Order may be reopened to include a numeric chronic toxicity limitation, a new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE. Additionally, if a numeric chronic toxicity water quality objective is adopted by the State Water Quality Board, this Order may be reopened to include a numeric chronic toxicity limitation based on that objective.

d. **303(d)-Listed Pollutants (Special Provisions VI.C.1.d).** This provision allows the Regional Water Board to reopen this Order to modify existing

effluent limitations or add effluent limitations for pollutants that are the subject of any future TMDL action.

e. **Water Effects Ratios (WERs) and Metal Translators (Special Provisions VI.C.1.e).** This provision allows the Regional Water Board to reopen this Order if future studies undertaken by the Discharger provide new information and justification for applying a water effects ratio or metal translator to a water quality objective for one or more priority pollutants.

f. **Mixing Zones.** If the Permittee collects sufficient information to justify a mixing zone and dilution credit consistent with the conditions listed in section 1.4.2.2 of the SIP, the Regional Water Board may reopen this Order to allow a mixing zone.

g. **Beneficial Use Identification.** If the Permittee collects sufficient information to support a site specific identification of beneficial uses of the freshwater wetland receiving water, then this Order may be reopened to incorporate such analysis

2. Special Studies and Additional Monitoring Requirements

a. Toxicity Reduction Evaluations (Special Provisions VI.C.2.a). The SIP requires the use of short-term chronic toxicity tests to determine compliance with the narrative toxicity objectives for aquatic life in the Basin Plan.

In addition to WET monitoring, this provision requires the Discharger to maintain an up-to-date TRE Work Plan for approval by the Executive Officer, to ensure the Discharger has a plan to immediately move forward with the initial tiers of a TRE in the event effluent toxicity is encountered in the future. The TRE is initiated by evidence of a pattern of toxicity demonstrated through the additional effluent monitoring provided as a result of an accelerated monitoring program.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Plan (Special Provisions VI.C.3.a). Section VI.C.3.a is included in this Order as required by section 2.4.5 of the SIP. The Regional Water Board includes standard provisions in all NPDES permits requiring development of a Pollutant Minimization Program when there is evidence that a toxic pollutant is present in the effluent at a concentration greater than an applicable effluent limitation.

4. **Construction, Operation, and Maintenance Specifications**

   a. **Operation and Maintenance (Special Provisions VI.C.4.a and VI.C.4.b).** Section 122.41(e) requires proper operation and maintenance of permitted wastewater systems and related facilities to achieve compliance with permit conditions. An up-to-date operation and maintenance manual, as required by Provision VI.C.4.b of the Order, is an integral part of a well-operated and maintained facility.

   b. **Basin 1 and 2 Operating Requirements (Special Provision VI.C.4.c).** This Order establishes operating requirements for Basins 1 and 2 to ensure that public contact with wastewater is not allowed and to minimize breeding of mosquitos.

5. **Special for Municipal Facilities (POTWs Only) – Not Applicable**

6. **Other Special Provisions**

   a. **Solids Disposal and Handling Requirements (Special Provisions VI.C.6.a).** This Order establishes solids disposal and handling requirements to ensure that solids removed from liquid wastes are stored, handled, and reused in a manner consistent with the Report of Waste Discharge and Section II.A of this Fact Sheet.

7. **Compliance Schedules – Not Applicable**

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, North Coast Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for Sierra Pacific Industries, Arcata Division Sawmill. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the following posting on the Regional Water Board's Internet site at: http://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npd

es_permits_and_wdrs.shtml and through publication in the Press Democrat on **March 15, 2012.**

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments must be received at the Regional Water Board offices by 5:00 p.m. on **April 27, 2012.**

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date:	June 7, 2012
Time:	9:00 a.m.
Location:	Willow Creek Community Services District Kimtu Cookhouse/Lodge 135 Willow Road Willow Creek, California

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing. When adopting this Order, the Regional Water Board, in the above referenced public meeting, heard and considered all comments pertaining to the discharge.

Please be aware that dates and venues may change. Our Web address is http://www.waterboards.ca.gov/northcoast where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

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

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (707) 576-2220.

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 Regional 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 Kason Grady at kgrady@waterboards.ca.gov or (707) 576-2682.

ATTACHMENT F-1

CTR No.	Constituent name	C[29] (µg/L)	Step 2	Step 3				Step 5					Final Result	
			Effluent Data Available (Y/N)?	Are all data points ND[30] (Y/N)	If all data points ND, enter the MDL[31] (µg/L)	Enter the pollutant effluent detected max conc (µg/L)	Pollutant Concentration[32]	B Available (Y/N)?	Are all B data points ND (Y/N)?	If all data points ND, enter the MDL (µg/L)	Enter the pollutant B detected max conc (µg/L)	If all B is ND, is MDL>C?	RPA Result	Reason[33]
1	Antimony	6	Y	N		0.25	0.25	N					**No**	Ud;MEC<C & B is ND
2	Arsenic	10	Y	N		51	51	N					**Ud**	Ud; need more data
3	Beryllium	4	Y	N		0.1	0.1	N					**No**	Ud;MEC<C & B is ND
4	Cadmium	3.1	Y	N		0.054	0.054	N					**No**	Ud;MEC<C & B is ND
5a	Chromium (III)	266	Y	N		15	15	N					**No**	Ud;MEC<C & B is ND
5b	Chromium (VI)	11	Y	N		8.2	8.2	N					**No**	Ud;MEC<C & B is ND
6	Copper	106.2	Y	N		9.8	9.8	N					**No**	Ud;MEC<C & B is ND
7	Lead	4.7	Y	N		2.3	2.3	N					**No**	Ud;MEC<C & B is ND
8	Mercury	0.050	Y	Y	0.2			N					**No**	MDL>C & No B
9	Nickel	68	Y	N		15	15	N					**No**	Ud;MEC<C & B is ND
10	Selenium	5.0	Y	N		0.24	0.24	N					**No**	Ud;MEC<C & B is ND
11	Silver	6.9	Y	N		0.028	0.028	N					**No**	Ud;MEC<C & B is ND
12	Thallium	1.7	Y	Y	0.02		0.02	N					**No**	Ud;MEC<C & B is ND
13	Zinc	155	Y	N		48	48	N					**No**	Ud;MEC<C & B is ND
14	Cyanide	5.2	Y	Y	2		2	N					**No**	Ud;MEC<C & B is ND
15	Asbestos	7.0	N					N					**Ud**	no effluent data & no B
16	2,3,7,8 TCDD	1.3E-08	Y	Y	2.15E-07			N					**No**	MDL>C & No B
17	Acrolein	320	Y	Y	12		12	N					**No**	Ud;MEC<C & B is ND
18	Acrylonitrile	0.06	Y	Y	4.2			N					**No**	MDL>C & No B
19	Benzene	1.0	Y	Y	4.6			N					**No**	MDL>C & No B

[29] C = the lowest (i.e., most stringent) water quality criterion.

[30] ND = non-detect

[31] MDL = minimum detection limit

[32] Maximum effluent concentration (MEC) is the maximum detected effluent concentration. If all data points are non-detect and the MDL is less than C, then the MEC equals the MDL.

[33] UD = undetermined

CTR No.	Constituent name	C[29] (µg/L)	Step 2	Step 3				Step 5					Final Result	
			Effluent Data Available (Y/N)?	Are all data points ND[30] (Y/N)	If all data points ND, enter the MDL[31] (µg/L)	Enter the pollutant effluent detected max conc (µg/L)	Pollutant Concentration[32]	B Available (Y/N)?	Are all B data points ND (Y/N)?	If all data points ND, enter the MDL (µg/L)	Enter the pollutant B detected max conc (µg/L)	If all B is ND, is MDL>C?	RPA Result	Reason[33]
20	Bromoform	4.3	Y	Y	7.8			N					**No**	MDL>C & No B
21	Carbon Tetrachloride	0.25	Y	Y	6			N					**No**	MDL>C & No B
22	Chlorobenzene	70	Y	Y	8.2		8.2	N					**No**	Ud;MEC<C & B is ND
23	Chlorodibromomethane	0.40	Y	Y	9.4			N					**No**	MDL>C & No B
24	Chloroethane	No Criteria	Y	Y	5		No Criteria	N					**Uo**	No Criteria
25	2-Chloroethylvinyl ether	No Criteria	Y	Y	19		No Criteria	N					**Uo**	No Criteria
26	Chloroform	No Criteria	Y	Y	8.2		No Criteria	N					**Uo**	No Criteria
27	Dichlorobromomethane	0.56	Y	Y	9.6			N					**No**	MDL>C & No B
28	1,1-Dichloroethane	5.0	Y	Y	8.6			N					**No**	MDL>C & No B
29	1,2-Dichloroethane	0.38	Y	Y	8.4			N					**No**	MDL>C & No B
30	1,1-Dichloroethylene	0.057	Y	Y	2.8			N					**No**	MDL>C & No B
31	1,2-Dichloropropane	0.52	Y	Y	4.8			N					**No**	MDL>C & No B
32	1,3-Dichloropropylene	0.50	Y	Y	4.2			N					**No**	MDL>C & No B
33	Ethylbenzene	300	Y	Y	8.8		8.8	N					**No**	Ud;MEC<C & B is ND
34	Methyl Bromide	48	Y	Y	5.4		5.4	N					**No**	Ud;MEC<C & B is ND
35	Methyl Chloride	No Criteria	Y	Y	9		No Criteria	N					**Uo**	No Criteria
36	Methylene Chloride	4.7	Y	Y	3.4		3.4	N					**No**	Ud;MEC<C & B is ND
37	1,1,2,2-Tetrachloroethane	0.17	Y	Y	3.4			N					**No**	MDL>C & No B
38	Tetrachloroethylene	0.80	Y	Y	6.6			N					**No**	MDL>C & No B
39	Toluene	150	Y	Y	5.4		5.4	N					**No**	Ud;MEC<C & B is ND
40	1,2-Trans-Dichloroethylene	10	Y	Y	9.6		9.6	N					**No**	Ud;MEC<C & B is ND
41	1,1,1-Trichloroethane	200	Y	Y	7.2		7.2	N					**No**	Ud;MEC<C & B is ND
42	1,1,2-Trichloroethane	0.60	Y	Y	9.8			N					**No**	MDL>C & No B
43	Trichloroethylene	2.7	Y	Y	9.4			N					**No**	MDL>C & No B
44	Vinyl Chloride	0.50	Y	Y	6.4			N					**No**	MDL>C & No B
45	2-Chlorophenol	120	Y	Y	0.66		0.66	N					**No**	Ud;MEC<C & B is ND
46	2,4-Dichlorophenol	93	Y	Y	0.66		0.66	N					**No**	Ud;MEC<C & B is ND
47	2,4-Dimethylphenol	540	Y	Y	1.2		1.2	N					**No**	Ud;MEC<C & B is ND
48	2-Methyl- 4,6-Dinitrophenol	13	Y	Y	0.75		0.75	N					**No**	Ud;MEC<C & B is ND
49	2,4-Dinitrophenol	70	Y	Y	1.3		1.3	N					**No**	Ud;MEC<C & B is ND
50	2-Nitrophenol	No Criteria	Y	Y	0.9		No Criteria	N					**Uo**	No Criteria
51	4-Nitrophenol	No Criteria	Y	Y	0.99		No Criteria	N					**Uo**	No Criteria
52	3-Methyl 4-Chlorophenol	No Criteria	Y	Y	0.58		No Criteria	N					**Uo**	No Criteria
53	Pentachlorophenol	0.28	Y	Y	1.4			N					**No**	MDL>C & No B
54	Phenol	21,000	Y	Y	0.46		0.46	N					**No**	Ud;MEC<C & B is ND
55	2,4,6-Trichlorophenol	2.1	Y	Y	0.74		0.74	N					**No**	Ud;MEC<C & B is ND
56	Acenaphthene	1,200	Y	Y	0.57		0.57	N					**No**	Ud;MEC<C & B is ND
57	Acenaphthylene	No Criteria	Y	Y	0.19		No Criteria	N					**Uo**	No Criteria
58	Anthracene	9,600	Y	Y	0.19		0.19	N					**No**	Ud;MEC<C & B is ND

CTR No.	Constituent name	C[29] (µg/L)	Step 2	Step 3				Step 5					Final Result	
			Effluent Data Available (Y/N)?	Are all data points ND[30] (Y/N)	If all data points ND, enter the MDL[31] (µg/L)	Enter the pollutant effluent detected max conc (µg/L)	Pollutant Concentration[32]	B Available (Y/N)?	Are all B data points ND (Y/N)?	If all data points ND, enter the MDL (µg/L)	Enter the pollutant B detected max conc (µg/L)	If all B is ND, is MDL>C?	RPA Result	Reason[33]
59	Benzidine	0.00012	Y	Y	3.4			N					**No**	MDL>C & No B
60	Benzo(a)Anthracene	0.0044	Y	Y	0.19			N					**No**	MDL>C & No B
61	Benzo(a)Pyrene	0.0044	Y	Y	0.19			N					**No**	MDL>C & No B
62	Benzo(b)Fluoranthene	0.0044	Y	Y	0.19			N					**No**	MDL>C & No B
63	Benzo(ghi)Perylene	No Criteria	Y	Y	0.19		No Criteria	N					**Uo**	No Criteria
64	Benzo(k)Fluoranthene	0.0044	Y	Y	0.19			N					**No**	MDL>C & No B
65	Bis(2-Chloroethoxy)Methane	No Criteria	Y	Y	0.81		No Criteria	N					**Uo**	No Criteria
66	Bis(2-Chloroethyl)Ether	0.031	Y	Y	0.14			N					**No**	MDL>C & No B
67	Bis(2-Chloroisopropyl)Ether	1,400	Y	Y	0.41		0.41	N					**No**	Ud;MEC<C & B is ND
68	Bis(2-Ethylhexyl)Phthalate	1.8	Y	Y	0.83		0.83	N					**No**	Ud;MEC<C & B is ND
69	4-Bromophenyl Phenyl Ether	No Criteria	Y	Y	0.43		No Criteria	N					**Uo**	No Criteria
70	Butylbenzyl Phthalate	3,000	Y	Y	0.64		0.64	N					**No**	Ud;MEC<C & B is ND
71	2-Chloronaphthalene	1,700	Y	Y	0.57		0.57	N					**No**	Ud;MEC<C & B is ND
72	4-Chlorophenyl Phenyl Ether	No Criteria	Y	Y	0.93		No Criteria	N					**Uo**	No Criteria
73	Chrysene	0.0044	Y	Y	0.19			N					**No**	MDL>C & No B
74	Dibenzo(a,h)Anthracene	0.0044	Y	Y	0.19			N					**No**	MDL>C & No B
75	1,2-Dichlorobenzene	600	Y	Y	9		9	N					**No**	Ud;MEC<C & B is ND
76	1,3-Dichlorobenzene	400	Y	Y	9.4		9.4	N					**No**	Ud;MEC<C & B is ND
77	1,4-Dichlorobenzene	5.0	Y	Y	9.6			N					**No**	MDL>C & No B
78	3,3 Dichlorobenzidine	0.040	Y	Y	2			N					**No**	MDL>C & No B
79	Diethyl Phthalate	23,000	Y	Y	0.86		0.86	N					**No**	Ud;MEC<C & B is ND
80	Dimethyl Phthalate	313,000	Y	Y	0.68		0.68	N					**No**	Ud;MEC<C & B is ND
81	Di-n-Butyl Phthalate	2,700	Y	Y	0.91		0.91	N					**No**	Ud;MEC<C & B is ND
82	2,4-Dinitrotoluene	0.110	Y	Y	0.68			N					**No**	MDL>C & No B
83	2,6-Dinitrotoluene	No Criteria	Y	Y	0.54		No Criteria	N					**Uo**	No Criteria
84	Di-n-Octyl Phthalate	No Criteria	Y	Y	0.65		No Criteria	N					**Uo**	No Criteria
85	1,2-Diphenylhydrazine	0.040	Y	Y	0.33			N					**No**	MDL>C & No B
86	Fluoranthene	300	Y	Y	0.76		0.76	N					**No**	Ud;MEC<C & B is ND
87	Fluorene	1,300	Y	Y	0.19		0.19	N					**No**	Ud;MEC<C & B is ND
88	Hexachlorobenzene	0.00075	Y	Y	0.89			N					**No**	MDL>C & No B
89	Hexachlorobutadiene	0.44	Y	Y	0.84			N					**No**	MDL>C & No B
90	Hexachlorocyclopentadiene	50	Y	Y	0.45		0.45	N					**No**	Ud;MEC<C & B is ND
91	Hexachloroethane	1.9	Y	Y	0.58		0.58	N					**No**	Ud;MEC<C & B is ND
92	Indeno(1,2,3-cd)Pyrene	0.0044	Y	Y	0.19			N					**No**	MDL>C & No B
93	Isophorone	8.4	Y	Y	0.81		0.81	N					**No**	Ud;MEC<C & B is ND
94	Naphthalene	No Criteria	Y	Y	0.66		No Criteria	N					**Uo**	No Criteria
95	Nitrobenzene	17	Y	Y	0.74		0.74	N					**No**	Ud;MEC<C & B is ND
96	N-Nitrosodimethylamine	0.00069	Y	Y	1.1			N					**No**	MDL>C & No B
97	N-Nitrosodi-n-Propylamine	0.0050	Y	Y	0.85			N					**No**	MDL>C & No B

CTR No.	Constituent name	C[29] (µg/L)	Step 2	Step 3				Step 5					Final Result	
			Effluent Data Available (Y/N)?	Are all data points ND[30] (Y/N)	If all data points ND, enter the MDL[31] (µg/L)	Enter the pollutant effluent detected max conc (µg/L)	Pollutant Concentration[32]	B Available (Y/N)?	Are all B data points ND (Y/N)?	If all data points ND, enter the MDL (µg/L)	Enter the pollutant B detected max conc (µg/L)	If all B is ND, is MDL>C?	RPA Result	Reason[33]
98	N-Nitrosodiphenylamine	5.0	Y	Y	0.9		0.9	N					**No**	Ud;MEC<C & B is ND
99	Phenanthrene	No Criteria	Y	Y	0.19		No Criteria	N					**Uo**	No Criteria
100	Pyrene	960	Y	Y	0.19		0.19	N					**No**	Ud;MEC<C & B is ND
101	1,2,4-Trichlorobenzene	5.0	Y	Y	0.59		0.59	N					**No**	Ud;MEC<C & B is ND
102	Aldrin	0.00013	Y	Y	0.0026			N					**No**	MDL>C & No B
103	alpha-BHC	0.0039	Y	Y	0.0022		0.0022	N					**No**	Ud;MEC<C & B is ND
104	beta-BHC	0.014	Y	Y	0.0022		0.0022	N					**No**	Ud;MEC<C & B is ND
105	gamma-BHC	0.019	Y	Y	0.0023		0.0023	N					**No**	Ud;MEC<C & B is ND
106	delta-BHC	No Criteria	Y	Y	0.0032		No Criteria	N					**Uo**	No Criteria
107	Chlordane	0.00057	Y	Y	0.035			N					**No**	MDL>C & No B
108	4,4'-DDT	0.00059	Y	Y	0.0031			N					**No**	MDL>C & No B
109	4,4'-DDE	0.00059	Y	Y	0.0019			N					**No**	MDL>C & No B
110	4,4'-DDD	0.00083	Y	Y	0.0018			N					**No**	MDL>C & No B
111	Dieldrin	0.00014	Y	Y	0.002			N					**No**	MDL>C & No B
112	alpha-Endosulfan	0.056	Y	Y	0.0011		0.0011	N					**No**	Ud;MEC<C & B is ND
113	beta-Endolsulfan	0.056	Y	Y	0.0035		0.0035	N					**No**	Ud;MEC<C & B is ND
114	Endosulfan Sulfate	110	Y	Y	0.0035		0.0035	N					**No**	Ud;MEC<C & B is ND
115	Endrin	0.036	Y	Y	0.0027		0.0027	N					**No**	Ud;MEC<C & B is ND
116	Endrin Aldehyde	0.76	Y	Y	0.0016		0.0016	N					**No**	Ud;MEC<C & B is ND
117	Heptachlor	0.00021	Y	Y	0.0028			N					**No**	MDL>C & No B
118	Heptachlor Epoxide	0.00010	Y	Y	0.0025			N					**No**	MDL>C & No B
119-125	PCBs sum	0.00017	Y	Y	0.02			N					**No**	MDL>C & No B
126	Toxaphene	0.00020	Y	Y	0.21			N					**No**	MDL>C & No B