



#### **Central Valley Regional Water Quality Control Board**

29 April 2016

Ken Cooper, Division Manager Sierra Pacific Industries 14333 Pericone Road Chinese Camp, CA 95309 CERTIFIED MAIL 7015 1730 0000 9937 3995

#### NOTICE OF ADOPTION OF ORDER R5-2016-0035 WASTE DISCHARGE REQUIREMENTS FOR SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL TUOLUMNE COUNTY

#### TRANSMITTAL OF ADOPTED ORDER, SIERRA PACIFIC INDUSTRIES, CHINESE CAMP MILL, TUOLUMNE COUNTY

Waste Discharge Requirements (WDRs) Order R5-2016-0035 for Sierra Pacific Industries was adopted by the Central Valley Regional Water Quality Control Board on 21 April 2016.

Although the WDRs allow wastewater discharge to land, the discharge is a privilege not a right and may be revoked at any time. A copy of the Order must be maintained at the facility and must be accessible to anyone operating the wastewater system. Please note that the Provisions section of the WDRs requires submittal of certain technical reports by the dates provided in the Order. The required submittals include the items in the following table.

Required Actions/Reports	Due Date
Solids Management Plan	21 October 2016
Technical Report prepared by a California registered engineer with a revised water balance demonstrating that there is sufficient capacity within the wastewater ponds and land spreading area to contain all wastewater and storm water during a 100-year wet year despite high groundwater levels, and document that all runoff controls and procedures are in place and operational. The technical report should include specific procedures for personnel to manage wastewater within the ponds and land spreading area, and provide contingency plans in the event of a potential failure or breach in the system.	21 October 2016

KARL E. LONGLEY SCD, P.E., CHAIR | PAMELA C. CREEDON P.E., BCEE, EXECUTIVE OFFICER

Required Actions/Reports	Due Date
Survey the bottom of the Upper Pond and evaluate the potential for high groundwater to intersect the bottom of the pond, and submit a technical report with the results of the pond evaluation, subject to Executive Officer approval. The technical report, should include a Work Plan and time schedule, if necessary, to reconfigure the Upper Pond so that high groundwater will no longer intersect the bottom of the pond.	23 January 2017
Begin reconfiguration of the Upper Pond.	No later than 90 days following approval of the Work Plan
Submit a technical report upon completion of the reconfiguration of the Upper Pond.	No later than 23 April 2018

In addition to technical reports required by the WDRs, the WDRs include a Monitoring and Reporting Program (MRP), which specifies monitoring and reporting requirements for you to implement. Please review the MRP closely so that you may establish appropriate sampling schedules and reporting protocols. The required monitoring report submittal dates are in the table below.

Required Monitoring Reports	Document Due Date
First Quarter Monitoring Report	1 May of each year.
Second Quarter Monitoring Report	1 August of each year.
Third Quarter Monitoring Report	1 November of each year.
Fourth Quarter/Annual Monitoring Report	1 February of each year.

Please be advised that the monitoring reports must be submitted on time and complete. Monitoring reports must include all of the items described in the Reporting Section of the MRP. The first monitoring report required under this Order is due on 1 November 2016, and is to cover the required monitoring for the 3<sup>rd</sup> quarter (July through September) monitoring period.

All monitoring and technical reports required by the Provisions of the WDRs and the MRP must be submitted by email to our Electronic Content Management (ECM) system. To use the ECM system, convert each letter, report, etc. to a searchable Portable Document Format (PDF) file and email it to:

centralvalleyfresno@waterboards.ca.gov.

To ensure that your submittal is routed to the appropriate staff, please include the following information block in any email used to transmit documents to this office:

Program: Non-15, WDID: 5C552019001, Facility Name: Chinese Camp Mill, Order: R5-2016-0035

http://www.waterboards.ca.gov/centralvalley/board\_decisions/adopted\_orders/.

Anyone without access to the Internet who needs a paper copy of the Order can obtain one by contacting Katie Carpenter at (559) 445-5551 or via email kcarpenter@waterboards.ca.gov.

SCOTT J. HATTON Senior Engineer RCE No. 67889

- Attachment: Native American Tribal Government Consultation List, Tuolumne County
- Enclosures: Waste Discharge Requirements R5-2016-0035 Standard Provisions and Reporting Requirements for Waste Discharge Requirements, 1 March 1991
- Patrick Pulupa, State Water Resources Control Board, OCC, Sacramento (via email) cc w/o enc: Andrew Deeringer, State Water Resources Control Board, OCC, Sacramento (via email) Scott Couch, State Water Resources Control Board, DWQ, Sacramento (via email) Tim O'Brien, State Water Resources Control Board, DWQ, Sacramento (via email) State Water Resources Control Board, Division of Drinking Water, Fresno Department of Fish and Wildlife, Region IV, Fresno Tuolumne County Air Pollution Control District, Sonora Tuolumne County, Department of Planning, Sonora Tuolumne County, Department of Environmental Health, Sonora Bill Jennings, California Sportfishing Protection Alliance, Stockton Gary Kramer, AMEC Foster Wheeler, Fresno Melissa Rice, Sierra Pacific Industries, Standard Rvan Land, Sierra Pacific Industries, Standard Native American Contacts (see attached Native American Tribal Government Consultation List for Tuolumne County)

#### Native American Tribal Government Consultation List Tuolumne County January 13, 2015

Chicken Ranch Rancheria of Me-Wuk Melissa Powell, Chairperson P.O. Box 1159 Miwok - Me-wuk Jamestown , CA 95327 chixrnch@mlode.com (209) 984-4806 Office (209) 984-5606 Fax

Buena Vista Rancheria Rhonda Morningstar Pope, Chairperson 1418 20th Street, Suite 200 Me-Wuk / Miwok Sacramento , CA 95811 rhonda@buenavistatribe.com (916) 491-0011 Office (916) 491-0012 Fax

Tuolumne Band of Me-Wuk Kevin Day, Chairperson P.O. Box 699 Me-Wuk - Miwok Tuolumne , CA 95379 receptionist@mlode.com (209) 928-3475 Office (209) 928-1677 Fax

Washoe Tribe of Nevada and California Darrell Kizer, Chairperson 919 Highway 395 South Washoe Gardnerville , NV 89410 ktrovato@washoetribe.us (775) 265-4191 Office (775) 265-6240 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable only for consultation with Native American tribes under Government Code Section 65352.3 and 65362.4. et seq.

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

# ORDER R5-2016-0035

# WASTE DISCHARGE REQUIREMENTS

FOR

# SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL TUOLUMNE COUNTY

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

- 1. Sierra Pacific Industries, a California corporation, submitted a Report of Waste Discharge (RWD), dated 4 March 2004 for the discharge of waste to land from its Chinese Camp Mill (Facility) in Tuolumne County. The RWD proposed the discharge of process wastewater and storm water runoff from the Facility's log deck and sawmill to 10 acres of adjacent pasture, referred to as the north spreading area (NSA). On 16 January 2015, Sierra Pacific Industries submitted a Feasibility Analysis with a revised water balance for the discharge of waste at a different location on-site, referred to as the land spreading area.
- 2. Chinese Camp Mill is approximately six miles southwest of Jamestown at 14333 Perricone Road, in Sections 4 and 5 of Township 1 North, Range 13 East, MDB&M. The Facility and land spreading area occupy Assessor's Parcel Number (APN) 064-081-18 as shown on Attachment A, which is attached hereto and made part of this Order by reference.
- 3. The Facility, constructed in 1955, was owned by the Snider Lumber Company. Fiberboard Corporation purchased the Facility in 1988 and sold it Sierra Pacific Industries in 1995.
- 4. Sierra Pacific Industries (hereafter SPI or Discharger) owns and operates the Facility that generates the waste and is responsible for compliance with these Waste Discharge Requirements.
- 5. Waste Discharge Requirements (WDRs) Order 97-132, adopted by the Central Valley Water Board on 20 June 1997, prescribes requirements for a discharge to land from the Facility. Order 97-132 is out of date and no longer adequately describes the discharge or regional board plans and policies. Therefore, Order 97-132 will be rescinded and replaced with this Order.

# **Facility and Discharge**

6. The Facility manufactures, stores, and distributes wood products. Major features include a 31-acre paved log deck, lumber mill, planner building, lumber storage areas, distribution and staging areas, vehicle maintenance and fueling areas, and an administrative building. On-site operations consist of log storage, debarking, cutting, and lumber storage.

- 7. Hazardous materials associated with the vehicle maintenance and fueling areas (i.e., fuel, antifreeze, waste oil, lubricants, and transmission fluid, etc.) are stored in covered areas and/or provided with secondary containment. The Discharger has a Hazardous Materials Business Plan filed with the county that addresses proper procedures for containment, clean-up, and disposal of hazardous materials in the event of a spill or release.
- 8. The Facility processes approximately 80 million board feet annually. Logs are delivered by truck to the sawmill and stacked on a 31-acre paved area (log deck). Bark is removed from the logs through a mechanical debarking process. Following bark removal, the logs are rough cut, planed, dried in kilns, stored, and sized for shipment.
- 9. In 2006, the planer and ancillary equipment as well as the kilns and associated boilers were removed, so that the logs are just cut and processed directly for shipping. In addition, the log deck was moved from an unpaved area west of the sawmill to its current paved location south and east of the sawmill between 2007 and 2008. These changes have resulted in less forklift traffic and improved overall efficiency resulting in reduced impacts from industrial activities.
- 10. Some of the lumber is treated with a water-based stain penetrant or sealer. According to the Discharger, this is a closed system, excess liquid from the operation drains by gravity to a concrete sump and is pumped back into the dip tanks.
- 11. The Facility uses a re-circulating log deck sprinkler system year-round as part of its operation to maintain moisture conditions on the logs. There are two water storage ponds maintained on-site identified as the Upper and Lower Ponds. Water stored in the Upper Pond, adjacent to and east of the paved log deck, is part of the log deck sprinkler system. Excess water from the log deck flows back into the Upper Pond for reuse. In the absence of storm water refilling the Upper Pond, groundwater is pumped into the Upper Pond to replace water that is lost due to sprinkling and evaporation.

During major precipitation events the sprinkler system is shut off and the Upper Pond is used to capture storm water runoff from the log deck and industrial areas around the sawmill. Excess storm water runoff is discharged to the Lower Pond, just east of the Upper Pond. Storm water from other areas of the Facility not associated with the log deck or saw mill operations are discharged separately under the National Pollutant Discharge Elimination System (NPDES) Industrial Storm Water General Permit.

12. In dry weather, groundwater from an on-site supply well (W-2) is used to provide make up water for the log deck sprinkler system. Well W-2 is constructed into the bedrock fractured aquifer and screened from about 68 to 339 feet below ground surface (bgs). An additional supply well adjacent to the truck scales, identified as LD-1, may also be used to supplement water for the log deck sprinkler system if well W-2 is insufficient.

- 13. Log deck runoff contains bark, sawdust, tannins & lignins, dissolved organics, and settleable and suspended solids. No chemicals are added to the log deck sprinkler system.
- 14. Table 1 presents average concentrations from samples collected from the Upper and Lower Ponds as well as the supply well W-2 for January 2012 through July 2015.

Parameters	Linite	Linner Pond	Lower Pond <sup>1</sup>	
Falameters	Units		LOWEI FUIIU	
рН	pH units	7.5 <sup>2</sup>	7.7 <sup>2</sup>	7.4 <sup>2</sup>
Electrical Conductivity (EC)	umhos/cm	743	514	796
Total Dissolved Solids (TDS)	mg/L	536	380	507
BOD <sub>5</sub> <sup>3</sup>	mg/L	14.5	8.6	n/a
Bicarbonate	mg/L	290	195	345
Calcium	mg/L	28	26	30
Magnesium	mg/L	64	40	82
Sodium	mg/L	20	15	23
Chloride	mg/L	64	39	58
Sulfate	mg/L	3.9	6.1	8.4
Boron	mg/L	0.24	0.28	0.09
Iron	mg/L	0.76	0.57	0.05
Manganese	mg/L	0.43	0.21	0.15
Aluminum	mg/L	1.7	0.25	<0.05
Arsenic	ug/L	3.2	3.1	2.5
Total Organic Carbon	mg/L	44	26	9.9
Tannin & Lignin	mg/L	9.6	4.1	1.8

TABLE 1. Wastewater Quality

Average of 4 samples, since the Lower Pond was predominantly dry during this time period.
<sup>2</sup> Modian pH

<sup>2.</sup> Median pH.

<sup>3.</sup> 5-day Biochemical Oxygen Demand.

- 15. Solids generated during sawmill operations include twigs, bark, chips, shavings, and saw dust. According to the Discharger, chips are processed, stored on paved area adjacent to the sawmill, and sold for use in landscaping. The remaining material is stored on an unpaved area near the southwest corner of the Facility until it is sold or shipped off-site for use as biofuel, soil amendment, or landscaping.
- 16. According to the Discharger, the Upper Pond is dredged, as needed, to remove solids and organic debris from the bottom of the pond. Current practice is to place the dredged material on the bank of the pond to build it up and so that the liquid drains back into the pond. This practice could lead to odor and nuisance conditions.

This Order requires the Discharger to prepare a Solids Management Plan to identify potential disposal methods or reuse options and select an appropriate method to dispose of the dredged material from the ponds.

17. Domestic wastewater generated at the Facility is discharged to an on-site septic system regulate by Tuolumne County.

# **Proposed Changes**

- 18. Federal regulations contain guidelines for sawmill operations, which prohibit the discharge of wastewater pollutants from barking, sawmill, planning, and finishing processes into navigable waters [Code of Federal Regulations (CFR), Title 40, parts 429.121 and 429.123]. This Order implements the Federal Regulations and prohibits the discharge of the applicable sawmill waste streams to surface waters.
- 19. Historically, there have been instances in wet years when the ponds have overfilled and discharged a combination of wastewater and storm water runoff from industrial operations at the Facility into the adjacent Six-Bit Gulch Creek during periods of heavy precipitation.

To prevent overflow of wastewater from the log deck and industrial storm water runoff from the sawmill operations, the Discharger began segregating the storm water runoff from its log deck and sawmill operations from other storm water drainages and contracted with a nearby property owner to discharge excess water from the Lower Pond to an adjacent 10-acre pasture. However, there were problems with the adjacent property owner and obtaining access to maintain the berms and control features to prevent runoff from the pasture area to nearby Six-Bit Gulch Creek and other surface water drainages.

- 20. In January 2015, the Discharger submitted a Feasibility Analysis to switch the land spreading area from the adjacent pasture to unpaved land within the Facility boundaries. The Feasibility Analysis proposed to spread excess water from the Upper and Lower Ponds to approximately 3.5 acres of land within the former log deck area south of the sawmill.
- 21. The water balance submitted with the Feasibility Analysis was used to model storage and disposal capacity at the Facility. Design storage was based on the containment of all wastewater and storm water runoff during a 100-year wet year to prevent overflow of the ponds and proposed land spreading area to adjacent surface water drainages. The Feasibility Analysis assumes a conservative storage capacity for both the Upper and Lower Ponds of approximately 5.7 million gallons. The water balance indicates that with proper management, the ponds and land spreading area will have sufficient capacity to handle the discharge during a 100-year wet year. However, as discussed later in Finding 31, high groundwater may infiltrate into the ponds during wet years, which was not considered in the Feasibility Analysis and may decrease infiltration and storage capacity of the ponds.
- 22. It is unclear from the Feasibility Analysis if the ponds and land spreading area will have sufficient capacity or runoff controls to fully contain and dispose of all wastewater and storm water on-site, in the event of a 100-year wet year. Therefore, this Order includes a provision requiring the Discharger to analyze the capacity of the waste disposal operation

to show that sufficient capacity exists and to correct any runoff issues from the land spreading area.

# **Site-Specific Conditions**

- 23. The Facility is approximately six miles southwest of Jamestown in the foothills of the Sierra Nevada Mountains at an elevation of approximately 1,200 feet above mean sea level (AMSL). Near surface geologic units on or near the site include quartz diorite and ultramafic rocks composed of serpentinized peridotite, hornblendite, and gabbro.
- 24. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map 06109C0850C, updated 16 April 2009, shows that the Facility is outside of any special flood hazard zones.
- 25. Average annual precipitation and pan evaporation for the area around New Melones Dam are about 34 inches and 50 inches, respectively, according to information published by the Western Regional Climate Center. The maximum annual precipitation with a 100-year rainfall return period is estimated to be about 49.8 inches.
- 26. Land use in the vicinity of the Facility is predominantly open space or rural residential. The Sierra Railroad bisects the northern corner of the Facility, and an intermittent stream (Six-Bit Gulch Creek) runs south along the eastern boundary of the Facility. The wastewater ponds for the nearby Hatler Industrial Park are approximately 2,000 feet southwest of the Facility.

# **Groundwater Conditions**

- 27. Well logs indicate that shallow alluvium consisting primarily of weathered bedrock is present at the Facility to about 30 feet bgs. However, bedrock has been encountered at shallower depths in various locations at the site. Bedrock underlying the site is predominantly serpentinized peridotite and gabbro. Near surface soil samples collected within the land spreading area show low levels of nutrients and salts, though magnesium is high, typical of soils formed from serpentinized bedrock.
- 28. Groundwater is first encountered in the shallow alluvium from 3 to 30 feet bgs. Deeper groundwater is present in the fractured bedrock beneath the site. Groundwater in the shallow alluvium generally flows to the south-southwest, which is consistent with site topography.
- 29. Two monitoring wells W-9 and W-10 installed at depths of 35 and 27 feet bgs, respectively in the shallow alluvium are used to monitor groundwater in the vicinity of the ponds. In 2004 the Discharger installed monitoring wells GW-1 through GW-4 to expanded its groundwater monitoring well network both up-gradient and down-gradient of the wastewater storage ponds. GW-5 was installed in November 2014 to define the lateral extent of groundwater degradation down-gradient of the ponds.

- 30. Shallow groundwater is strongly influenced by recharge from rainfall, water stored in the ponds, and flows in the adjacent Six-Bit Gulch Creek, resulting in significant seasonal fluctuations especially in the monitoring wells around the ponds.
- 31. A comparison of groundwater elevations taken from W-9 and W-10, that range from about 1,148 to 1,175 feet above mean sea level, with the elevation of the bottom of the Lower Pond (1,165.53 feet above mean sea level) shows that occasionally groundwater levels rise above the bottom of the pond. This occurs in wet years during the winter and early spring when groundwater recharge is high. The bottom elevation of the Upper Pond is not known, so it is not clear if this occurs in the Upper Pond as well.

This Order requires the Discharger to determine the bottom elevation of the Upper Pond and re-configure the Upper Pond, if necessary, to ensure groundwater does not infiltrate into the pond and mix with the wastewater.

32. Table 2 below presents average concentrations in groundwater for samples collected from January 2012 to July 2015.

Constituent	Units	Up-Gr	adient	Around	d Ponds	D	own-gradier	nt	MCLs
		GW-1	GW-2	W-9	W-10	GW-3	GW-4	GW-5	
рН	S.U.	8.9	7.7	7.3	7.1	7.5	7.5	7.6	
EC	umhos/cm	377	726	729	548	630	660	500	900/1,600 <sup>1</sup>
TDS	mg/L	230	450	471	350	394	416	338	500/1,000 <sup>1</sup>
Alkalinity	mg/L	191	286	292	214	308	300	203	
Calcium	mg/L	7.9	22	29	34	16	27	33	
Magnesium	mg/L	46	70	69	40	73	67	44	
Sodium	mg/L	45	27	20	17	7.8	12	8.5	
Potassium	mg/L	<1	1.9	9.8	11	<1	1.2	<1	
Chloride	mg/L	8.3	63	58	35	19	42	22	250/500 <sup>1</sup>
Sulfate	mg/L	3.2	7.6	8.4	10	5.6	11	15	250/500 <sup>1</sup>
Aluminum	ug/L	<50	<50	<50	<50	<50	<50	<50	1,000 <sup>2</sup>
Arsenic	ug/L	1.5	0.9	3.9	6.6	2	2.4	8.4	
Iron	mg/L	<0.2	<0.2	0.24	<0.2	<0.2	0.2	0.14	0.3 <sup>3</sup>
Manganese	mg/L	<0.02	0.16	1.23	1.61	<0.02	0.27	0.02	0.05 <sup>3</sup>
TOC	mg/L	1.8	6.2	18	8.1	3.1	5.2	5.5	
Tannin & Lignin	mg/L	<0.1	0.4	2.1	1.2	0.2	0.5	0.2	

TABLE 2. Groundwater Quality (January 2012 through July 2015)

MCLs= Maximum Contaminant Levels for drinking water. Concentrations in bold exceed their respective MCLs.

1. Recommended/Upper Secondary MCL.

2. Primary MCL.

3. Secondary MCL.

33. The data show some groundwater degradation around and down-gradient of the ponds, but concentrations are still below water quality objectives, except for manganese. Manganese concentrations exceed the secondary MCL of 0.05 mg/L in monitoring wells W-9, W-10, GW-2, and GW-4 with concentrations ranging from 1.61 in W-10 (directly

adjacent to the Upper Pond) to 0.16 mg/L in GW-2 (immediately up-gradient of the ponds but adjacent to the former boilers and ash pile), but appears to decrease as groundwater moves away from the ponds and is just at the detection limit of 0.02 mg/L in GW-5 (down-gradient monitoring well furthest from the ponds).

- 34. The monitoring wells in close proximity to the ponds also show a lower pH and higher concentrations of EC, TDS, TOC, potassium, and Tannin & Lignin compared to up-gradient wells. Likely due to the high concentrations of wood and organic material settling in the ponds.
- 35. A comparison of current groundwater quality with groundwater quality prior to the relocation of the log deck to the 31 acre paved area adjacent to the sawmill in 2007 as shown in Table 3 below shows that there has been a slight improvement in groundwater quality following re-location of the log deck. Specifically monitoring wells GW-3 and GW-4, down-gradient of the ponds and the former unpaved log deck area show significant decreases in EC, TDS, and chloride concentrations, as well as a slight decrease in manganese concentrations and total organic carbon.

Constituent	Units	<u>Up-Gr</u>	adient	Around Ponds Down-Gradient		MCLs		
		GW-1	GW-2	W-9	W-10	GW-3	GW-4	
pН	s.u.	9.2	7.9	7.1	7.1	7.5	7.5	
EC	umhos/cm	396	659	800	557	699	845	900/1,600 <sup>1</sup>
TDS	mg/L	237	403	527	374	439	538	500/1,000 <sup>1</sup>
Alkalinity	mg/L	202	241	244	191	296	301	
Calcium	mg/L	8.3	19	26	29	17	34	
Magnesium	mg/L	49	61	65	30	82	76	
Sodium	mg/L	4.3	25	38	36	6.1	11	
Potassium	mg/L	1.6	1.2	7	15	1.1	1.6	
Chloride	mg/L	9	59	102	50	43	85	250/500 <sup>1</sup>
Sulfate	mg/L	3.1	7.1	10	5.6	5.8	16	250/500 <sup>1</sup>
Aluminum	ug/L	<50	<50	<50	<50	<50	<50	1000 <sup>2</sup>
Arsenic	ug/L	2.6	<2	2.9	7.9	2.1	3.1	
Iron	mg/L	<0.2	<0.2	0.17	0.06	<0.2	<0.2	0.3 <sup>3</sup>
Manganese	mg/L	<0.02	0.02	1.8	2.3	0.17	0.46	0.05 <sup>3</sup>
TOC	mg/L	0.72	1.9	18	18	3.5	4.2	
Tannin & Lignin	mg/L	<0.1	<0.1	2.5	2.7	0.11	0.32	

TABLE 3. Groundwater Quality (January 2005 to December 2007)

MCLs= Maximum Contaminant Levels for drinking water. Concentrations shown in bold exceed their respective MCLs.

1. Recommended / Upper Secondary MCLs.

2. Primary MCL.

- 3. Secondary MCL.
- 36. To minimize the potential for groundwater degradation due to wood and organic debris in the ponds, this Order includes a provision requiring the Discharger to prepare and implement a Solids Management Plan to ensure proper maintenance, clean-out, and disposal of settled solids from the ponds.

## Basin Plan, Beneficial Uses, and Regulatory Considerations

- 37. The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition, revised June 2015 (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Board. Pursuant to Water Code section 13263(a), waste discharge requirements must implement the Basin Plan.
- 38. The Facility lies within the Sonora Hydraulic Area (536.31), as depicted on interagency hydrologic maps prepared by the State Water Resources Control Board and the Department of Water Resources, revised in August 1986. Surface drainage is by sheet flow to Six-Bit Gulch Creek, an intermittent stream the runs south along the eastern boundary of the site. Six-Bit Gulch Creek flows into the (New) Don Pedro Reservoir. The beneficial uses of the source to (New) Don Pedro Reservoir, as stated in the Basin Plan, are municipal and domestic supply; agricultural supply; hydropower generation; water contact recreation; non-contact water recreation; warm and cold freshwater habitat; and wildlife habitat.
- 39. The beneficial uses of underlying groundwater as set forth in the Basin Plan are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
- 40. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.
- 41. The Basin Plan's numeric water quality objective for bacteria requires that the most probable number (MPN) of coliform organisms over any seven day period shall be less than 2.2 per 100 mL in MUN groundwater.
- 42. The Basin Plan's narrative water quality objective for chemical constituents requires, at a minimum, waters designated as domestic or municipal supply to meet the MCLs specified in Title 22 of the California Code of Regulations (hereafter Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.
- 43. The narrative toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.
- 44. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative objective is required to

protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in order to implement the narrative objective.

45. Excessive application of high organic strength wastewater to land can create objectionable odors, soil conditions that are harmful to crops, and can deplete oxygen concentrations in the vadose zone leading to anoxic conditions. At the ground surface this can result in nuisance odors and fly-breeding. When insufficient oxygen is present below the ground surface, anaerobic decay of the organic material can create reducing conditions that convert metals that are naturally present in the soil as relatively insoluble (oxidized) forms to more soluble reduced forms. This condition can be exacerbated by acidic soils and/or wastewater. If reducing conditions do not reverse as the percolate travels through the vadose zone, these dissolved metals (primarily iron, manganese, and arsenic) can degrade shallow groundwater quality. Many aquifers contain enough dissolved oxygen to reverse this process, but excessive BOD loading over extended periods may cause beneficial use impacts associated with these metals.

Manganese concentrations in groundwater above the secondary MCL are likely due to organic loading and reducing conditions beneath the ponds. To minimize the potential for the organic material in the discharge to cause nuisance conditions and degrade groundwater quality, this Order requires the Discharger to properly manage its wastewater ponds including ensure proper clean out and disposal of all organic material collected in ponds on a regular basis.

# **Antidegradation Analysis**

- 46. State Water Resources Control Board Resolution 68-16 (*Antidegradation Policy*) prohibits the Central Valley Water Board from authorizing the degradation of groundwater unless it has been shown that:
  - a. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives;
  - b. The degradation will not unreasonably affect present and anticipated future beneficial uses;
  - c. The discharger employs best practicable treatment or control (BPTC) to minimize degradation; and
  - d. The degradation is consistent with the maximum benefit to the people of the State.
- 47. Groundwater data has shown some degradation for EC, TDS, chloride, iron, manganese, total organic carbon, and tanins & lignins in monitoring wells around the ponds. Except for manganese the degradation observed in groundwater is below water quality objectives. Based on the character of the wastewater the discharge does not contain significant concentrations of manganese. However, as noted in previous findings, excessive organic loading can deplete oxygen, resulting in anoxic

conditions that can solubilize naturally occurring metals in soil. The groundwater data shows that manganese concentrations above the secondary MCL are limited to the area just around the wastewater ponds and that concentrations decrease below the secondary MCL of 0.05 mg/L as the distance from the ponds increases.

- 48. The Discharger provides or will provide, as required by this Order treatment and control of the discharge that incorporates:
  - a. Segregation of storm water runoff;
  - b. Screening to remove solids;
  - c. Aerator(s) within the Upper Pond to control odors and nuisance conditions;
  - d. Proper clean out and disposal of solids collected in the ponds;
  - e. Discharge of excess water to the land spreading area to prevent overflow of the ponds;
  - f. Proper maintenance and inspection of all runoff controls and equipment within the ponds and land spreading area;
  - g. Evaluate and implement improvements to the Upper Pond, as needed to ensure the shallow groundwater does not infiltrate into the pond; and
  - h. Groundwater monitoring to monitor the impact of the discharge on first encountered groundwater.
- 49. The treatment and control measures described in Finding 48, in combination with the requirements of this Order, represent BPTC. Adoption of this Order will result in the implementation of BPTC. In addition, this Order requires monitoring to evaluate potential groundwater impacts from the discharge and confirm that BPTC measures are sufficiently protective of groundwater quality.
- 50. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State. The Discharger supplies a needed product service, and aids in the economic prosperity of the region by direct employment and provides a tax base for local and state governments. Provided the discharge complies with State and Central Valley Water Board plans and policies, there is sufficient justification for allowing the limited groundwater degradation that may occur pursuant to this Order.
- 51. This Order is consistent with the Antidegradation Policy since; (a) the limited degradation allowed by this Order will not result in water quality less than water quality objectives, or unreasonably affect present and anticipated beneficial uses, (b) the Discharger has implemented BPTC to minimize degradation, and (c) the limited degradation is of maximum benefit to people of the State.

#### **Other Regulatory Considerations**

- 52. In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.
- 53. Based on the threat and complexity of the discharge, the Facility is determined to be classified as "2C" as defined below:
  - a. Category 2 threat to water quality: "Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated or cause nuisance."
  - b. Category C complexity, defined as: "Any discharger for which waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code not included in Category A or Category B... Included are dischargers having no waste treatment systems or that must comply with best management practices, dischargers having passive treatment and disposal systems, or dischargers having waste storage systems with land disposal."
- 54. Title 27 of the California Code of Regulations (hereafter Title 27) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste. However, Title 27 exempts certain activities from its provisions. Discharges regulated by this Order are exempt from Title 27 pursuant to provisions that exempt wastewater. Title 27, section 20090 states in part:

The following activities shall be exempt from the SWRCB-promulgated provisions of this subdivision, so long as the activity meets, and continues to meet, all preconditions listed:

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

- (1) the applicable RWQCB has issued WDRs, reclamation requirements, or waived such issuance;
- (2) the discharge is in compliance with the applicable water quality control plan; and
- (3) the wastewater does not need to be managed according to Chapter 11, Division 4.5, Title 22 of this code as a hazardous waste.

-11-

- 55. The discharge authorized herein, and the treatment and storage facilities associated with the discharge, are exempt from the requirements of Title 27 as follows:
  - a. The discharge of process wastewater and storm water to the unlined percolation/evaporation ponds and land spreading area are exempt pursuant to Title 27, section 20090(b) because they are discharge of wastewater to land and:
    - i. The Central Valley Water Board is issuing WDRs.
    - ii. The discharge is in compliance with the Basin Plan, and;
    - iii. The discharge does not need to be managed as a hazardous waste.
- 56. The United States Environmental Protection Agency (USEPA), on 16 November 1990, promulgated storm water regulations (40 CFR Parts 122, 123, and 124) which require specific categories of industrial facilities which discharge storm water to obtain NPDES permits and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate industrial storm water pollution.
- 57. On 1 April 2014, the State Water Board adopted Order 2014-0057-DWQ (NPDES General Permit CAS00001) specifying waste discharge requirements for discharges of storm water associated with industrial activities. Order 2014-0057-DWQ supersedes State Water Board Order 97-03-DWQ (NPDES General Permit CAS000001) and became effective on 1 July 2015. Order 2014-0057-DWQ requires all applicable industrial dischargers to apply for coverage under the General Order by the effective date. The Discharger has submitted a Notice of Intent and a Stormwater Pollution Prevention Plan to obtain coverage under the Industrial Storm Water General Permit for those storm water discharges at the Facility not covered by these WDRs.
- 58. The USEPA published *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (hereafter "Unified Guidance") in 2009. As stated in the Unified Guidance, the document:

...is tailored to the context of the RCRA groundwater monitoring regulations ... [however, t]here are enough commonalities with other regulatory groundwater monitoring programs... to allow for more general use of the tests and methods in the Unified Guidance... Groundwater detection monitoring involves either a comparison between different monitoring stations ... or a contrast between past and present data within a given station... The Unified Guidance also details methods to compare background data against measurements from regulatory compliance points... [as well as] techniques for comparing datasets against fixed numerical standards... [such as those] encountered in many regulatory programs.

The statistical data analysis methods in the Unified Guidance are appropriate for determining whether the discharge complies with Groundwater Limitations of this Order.

#### 59. Water Code section 13267(b) states:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposes to discharge within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

The technical reports required by this Order and the attached Monitoring and Reporting Program R5-2016-0035 are necessary to ensure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.

- 60. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards), as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 74-81* (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to Water Code section 13801, apply to all monitoring wells used to monitor the impacts of wastewater storage or disposal governed by this Order.
- 61. Aside from the runoff controls within the proposed land spreading area, all components of the wastewater system are part of the existing Facility and are in use. The action of prescribing these WDRs, which places additional regulatory requirements on the continued operation of the Facility in order to ensure the protection of water quality, is therefore exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with California Code of Regulations, title 14, section 15301, which exempts the "operation, repair, maintenance, [and] permitting ... of existing public or private structures, facilities, mechanical equipment, or topographical features" from environmental review.
- 62. Pursuant to Water Code section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

## **Public Notice**

63. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.

- 64. The Discharger and interested agencies and persons have been notified of the Central Valley Water Board's intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity to submit written comments and an opportunity for a public hearing.
- 65. All comments pertaining to the discharge were heard and considered in a public hearing.

**IT IS HEREBY ORDERED** that Waste Discharge Requirements Order 97-132 is rescinded and that Sierra Pacific Industries, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted hereunder, shall comply with the following:

# A. Discharge Prohibitions

- 1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
- 2. Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, title 23, section 2510 et seq., is prohibited.
- 3. Bypass of untreated or partially treated waste is prohibited, except as allowed by Standard Provision E.2 of the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*.
- 4. Discharge of waste including storm water not covered by the NPDES Industrial Storm Water General Permit at a location or in a manner different from that described in the Findings herein, is prohibited.
- 5. The discharge of ash, bark, sawdust, shavings, wood debris, or any other wastes recognized as originating from the Facility to surface waters, or surface water drainage courses is prohibited.
- 6. The discharge of hazardous or toxic substances, including wood treatment chemicals, solvents, or petroleum products (including oil, grease, gasoline and diesel) to surface water of groundwater is prohibited.
- 7. Discharge of domestic waste to anything other than the on-site septic system or regularly serviced portable toilets is prohibited.
- 8. Discharge of anything other than domestic wastewater to the septic tank and leachfield system is prohibited.

## **B.** Discharge Specifications

- 1. No waste constituent shall be released, discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations of this Order.
- 2. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.
- 3. The discharge shall remain within the permitted wastewater treatment and containment structures at all times.
- 4. The Discharger shall operate all systems and equipment to optimize the quality of the discharge including pond aerators and collection screens.
- 5. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
- 6. Public contact with wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.
- 7. The Discharger shall operate and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. Unless a California registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard in any pond shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operation freeboard.
- 8. Wastewater treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the wet season while ensuring continuous compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
- 9. On or about 1 October of each year, available capacity in the ponds shall at least equal the volume necessary to comply with Discharge Specifications B.7 and B.8.
- 10. The pH of wastewater in the Upper and Lower Ponds shall not be less than 6.5 or greater than 8.5.

- 11. Objectionable odors shall not be perceivable beyond the limits of the property where the waste is generated, treated, and/or stored and discharged at an intensity that creates or threatens to create nuisance conditions.
- 12. The Discharger shall monitor sludge accumulation in the wastewater ponds at least every two years beginning in 2016, and shall periodically remove the sludge, as necessary, to maintain adequate storage capacity, and minimize organic loading in the ponds in accordance with the approved Solids Management Plan required by Provision F.14.
- 13. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes. Specifically:
  - a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.
  - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
  - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
  - d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.

# C. Land Spreading Area Specifications

- 1. The discharge shall be distributed uniformly on adequate acreage within the land spreading area to preclude the creation of nuisance conditions or unreasonable degradation of groundwater.
- 2. Application of wastewater to the land spreading area shall be managed to minimize erosion.
- 3. The land spreading areas shall be managed to prevent breeding of mosquitoes. In particular:
  - a. There shall be no standing water 72 hours after irrigation ceases;
  - b. Tailwater ditches shall be maintained essentially free of emergent, marginal, and floating vegetation; and
  - c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store wastewater.
- 4. The land spreading area shall be inspected as frequently as necessary to ensure continuous compliance with the requirements of this Order.

5. Any runoff of wastewater or storm water shall be confined to the land spreading area or returned to the ponds and shall not enter any surface water drainage course or storm water drainage system.

# **D. Solids Disposal Specifications**

Solids as used in this document, means the wood debris, twigs, leaves, chips, shavings and saw dust generated during sawmill operations as well as any residual solids (or sludge) and organic material removed from wastewater ponds.

- 1. Any handling and storage of solids and residual solids shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.
- 2. If removed from the site, residual solids shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for reuse as animal feed, or land disposal at facilities (i.e., landfills, composting facilities, soil amendment sites) operated in accordance with valid waste discharge requirements issued by a regional water board will satisfy this specification.
- 3. Any proposed change in solids use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

# E. Groundwater Limitations

Release of waste constituents associated with the discharge shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or natural background quality for the specified constituents, whichever is greater:

- i. Nitrate as nitrogen of 10 mg/L.
- ii. For constituents identified in Title 22 of the California Code of Regulations, the MCLs quantified therein.

## F. Provisions

- 1. The Discharger shall comply with Monitoring and Reporting Program R5-2016-0035, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.
- 2. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are

attached hereto and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."

- 3. As described in the Standard Provisions, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.
- 4. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
- 5. In the event of any change in control or ownership of the facility, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.
- 6. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.
- 7. 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 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 back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.
- 8. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action,

including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

- 9. The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer, and incorporate comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Discharger shall proceed with all work required by the foregoing provisions by the due dates specified.
- 10. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.
- 11. As a means of discerning compliance with Discharge Specification B.11, the dissolved oxygen (DO) content in the upper one foot of any wastewater pond shall not be less than 1.0 mg/L for three consecutive sampling events. If the DO in any single pond is below 1.0 mg/L for three consecutive sampling events, the Discharger shall report the findings to the Central Valley Water Board in writing within 10 days and shall include a specific plan to resolve the low DO results within 30 days.
- 12. At least **90 days** prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and assure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to assure full compliance with this Order.
- 13. **Pond Improvements**: The Discharger shall survey the bottom of the Upper Pond and complete an evaluation to determine if high groundwater will rise above the bottom of the Upper Pond. If, it is determined that the high groundwater could infiltrate into the Upper Pond, the Discharger shall prepare a Work Plan, for Executive Officer approval, to reconfigure the Upper Pond so that high groundwater will no longer intersect the pond, with a time schedule to complete the necessary improvements.

The Discharger shall comply with the following compliance schedule in implementing the work required by this Provision:

	Task	Compliance Date
a.	Survey the bottom of the Upper Pond and evaluate the potential for high groundwater to intersect the bottom of the pond, and submit a technical report with the results of the pond evaluation, subject to Executive Officer approval. The technical report, should include a Work Plan and time schedule, if necessary, to reconfigure the Upper Pond so that high groundwater will no longer intersect the bottom of the pond.	23 January 2017
b.	Begin reconfiguration of the Upper Pond.	< <b>90 days</b> > following approval of the Work Plan
C.	Submit technical report on completion of the reconfiguration of the Upper Pond.	In compliance with the time schedule but no later than <b>23 April 2018.</b>

- 14. **By 21 October 2016**, the Discharger shall submit a Solids Management Plan, subject to Executive Officer approval. The Solids Management Plan shall characterize the solids (or sludge) removed from the wastewater ponds with respect to nutrients, salts, and metals; identify potential disposal or beneficial reuse options (i.e., soil supplement, biomass fuel, or other uses); and select an appropriate method(s) to dispose of the material.
- 15. **By 21 October 2016,** the Discharger shall submit a technical report prepared by a California registered engineer with a revised water balance demonstrating that there is sufficient capacity within the wastewater ponds and land spreading area to contain all wastewater and storm water during a 100-year wet year despite high groundwater levels, and document that all runoff controls and procedures are in place and operational. The technical report should include specific procedures for personnel to manage wastewater within the ponds and land spreading area, and provide contingency plans in the event of a potential failure or breach in the system.

This provision will be considered complete following written approval by Executive Officer.

16. The Central Valley Water Board is currently implementing the CV-SALTS initiative to develop a Basin Plan amendment that will establish a salt and nitrate management plan for the Central Valley. Through this effort the Basin Plan will be amended to define how the narrative water quality objectives are to be interpreted for the protection of agricultural use. If new information or evidence indicates that

groundwater limitations different than those prescribed herein are appropriate, this Order will be reopened to incorporate such limits.

17. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order or with the WDRs may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

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

http://www.waterboards.ca.gov/public\_notices/petitions/water\_quality

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full true, and correct copy of an Order adopted by the California Regional Water Quality Control Board on 21 April 2016.

Original signed by:

PAMELA C. CREEDON, Executive Officer

Order Attachments: A Site Location Map

Monitoring and Reporting Program R5-2016-0035 Information Sheet Standard Provisions (1 March 1991)

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

# MONITORING AND REPORTING PROGRAM NO. R5-2016-0035

FOR

# SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL TUOLUMNE COUNTY

This Monitoring and Reporting Program (MRP) is required pursuant to California Water Code (CWC) section 13267.

The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts, or the Executive Officer issues, a revised MRP. Changes to sample location shall be established with concurrence of Central Valley Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. All analyses shall be performed in accordance with *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991 (Standard Provisions).

Field test instruments (such as pH) may be used provided that the operator is trained in the proper use of the instrument and each instrument is serviced and/or calibrated at the recommended frequency by the manufacturer or in accordance with manufacturer instructions.

Analytical procedures shall comply with the methods and holding times specified in the following: *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA); *Test Methods for Evaluating Solid Waste* (EPA); *Methods for Chemical Analysis of Water and Wastes* (EPA); *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA); *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125). Approved editions shall be those that are approved for use by the United States Environmental Protection Agency or the California Department of Public Health's Environmental Laboratory Accreditation Program. The Discharger may propose alternative methods for approval by the Executive Officer.

If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency.

A glossary of terms used within this MRP is included on page 9.

The Discharger shall monitor the following locations to demonstrate compliance with the requirements of this Order:

Monitoring Location	Monitoring Location Description
PND-001	Location where a representative sample of the water in the Upper Pond can be obtained.
PND-002	Location where a representative sample of the water in the Lower Pond can be obtained.
R-1	Location where a representative sample of the surface water from Six-Bit Gulch Creek can be obtained. Sample location to be a minimum of 200 feet up-stream of the Facility.
R-2	Location where a representative sample of the surface water from Six-Bit Gulch Creek can be obtained. Sample location to be a minimum of 50 feet down-stream of the Facility before any other stream or tributary converges into Six-Bit Gulch Creek.
SPL-001	Location where a representative sample of the make-up water used in the log deck sprinkler system can be obtained.
LSA-001	Location where the discharge to the land spreading area can be monitored.
W-9 and W-10	Groundwater monitoring wells around the Upper and Lower Ponds.
GW-1 through GW-5	Additional groundwater monitoring wells.

# POND MONITORING

Permanent Markers (e.g., staff gauges) shall be placed in all ponds. The markers shall have calibrations indicating water level at design capacity and available operational freeboard.

The Discharger shall monitor the water in both the Upper and Lower Ponds at PND-001 and PND-002, when water is present. Samples shall be representative of the volume and nature of the discharge. Time of collection of the samples shall be recorded. Pond monitoring shall include at least the following:

<b>Frequency</b>	Constituent/Parameter	<u>Units</u>	<u>Sample Type</u>
Weekly	Freeboard	Feet	Observation
Monthly	рН	pH Units	Grab
Monthly	EC	umhos/cm	Grab
Semi-Annually <sup>1</sup>	Oil & Grease	mg/L	Grab
Semi-Annually <sup>1</sup>	Tannin & Lignin	mg/L	Grab

<b>Frequency</b>	Constituent/Parameter	<u>Units</u>	Sample Type
Semi-Annually <sup>1</sup>	Biochemical Oxygen Demand (BOD)	mg/L	Grab
Semi-Annually <sup>1</sup>	Total Suspended Solids (TSS)	mg/L	Grab
Semi-Annually <sup>1</sup>	Total Organic Carbon (TOC)	mg/L	Grab
Semi-Annually <sup>1</sup>	Arsenic	ug/L	Grab
Semi-Annually <sup>1</sup>	Barium	ug/L	Grab
Semi-Annually <sup>1</sup>	Aluminum	ug/L	Grab
Semi-Annually <sup>1</sup>	General Minerals <sup>2</sup>	various	Grab

 Samples to be collected Semi-Annually during the 2<sup>nd</sup> quarter (between April and June) and the 4<sup>th</sup> quarter (between October and December. Water in PND-001 to be collected at least once annually within 48 hours following the season's first significant precipitation event.

 General mineral analysis shall include, alkalinity (as CaCO3), bicarbonate (as CaCO3), boron, calcium, carbonate (CaCO3), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, phosphate, potassium, sodium, sulfate and total dissolved solids (TDS). Samples collected for metals shall be filtered with a 0.45 micron filter prior to preservation, digestion, and analysis.

# SURFACE WATER MONITORING

Surface water monitoring of Six-Bit Gulch Creek shall be performed only when the creek is flowing (i.e., not when creek contains just stagnant water). Surface water samples shall be collected at R-1 and R-2, up-stream and down-stream of the Facility and analyzed for the following constituents.

Frequency	Constituent/Parameter	<u>Units</u>	<u>Sample Type</u>
Monthly	EC	umhos/cm	Grab
Monthly <sup>1</sup>	Chloride	mg/L	Grab

1. Samples to be analyzed only when the EC of the down-stream location (R-2) is greater that the up-stream location (R-1) by five percent or more.

## SUPPLY WATER MONITORING

The Discharger shall collect samples of its supply water for the Facility's log deck sprinkler system at SPL-001, and analyze them for the constituents specified below. If the supply water is from more than one source, the results shall be presented as a flow-weighted average of all sources.

Frequency	Constituent/Parameter	<u>Units</u>	Sample Type
Monthly	Volume	gallons	Metered
Quarterly <sup>1</sup>	EC	umhos/cm	Grab
Annually <sup>2</sup>	рН	pH units	Grab
Annually <sup>2</sup>	Arsenic	ug/L	Grab
Annually <sup>2</sup>	Barium	ug/L	Grab
Annually <sup>2</sup>	Aluminum	ug/L	Grab
Annually <sup>2</sup>	Total Organic Carbon	mg/L	Grab
Annually <sup>2</sup>	Tannin & Lignin	mg/L	Grab
Annually <sup>2</sup>	General Minerals <sup>3</sup>	various	Grab

1. Samples to be collected in January, April, July, and October.

2. Samples to be collected in July.

 General mineral analysis shall include, alkalinity (as CaCO3), bicarbonate (as CaCO3), boron, calcium, carbonate (CaCO3), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, phosphate, potassium, sodium, sulfate, and TDS. Samples collected for metals shall be filtered with a 0.45 micron filter prior to preservation, digestion, and analysis.

## LAND SPREADING AREA MONITORING

The Discharger shall conduct an annual inspection of the land spreading area prior to the start of the wet season to check the berms and all runoff control features as well as all pumps and meters to ensure proper operation and containment. The results of the annual inspection shall be included as part of the third quarter monitoring report.

In addition, the Discharger shall perform the following routine monitoring of the discharge to the land spreading area. The data shall be collected and presented in tabular format and shall include the following:

<b>Frequency</b>	Constituent/Parameter	<u>Units</u>	Sample Type
Daily <sup>1</sup>	Wastewater flow	gallons	Metered
Daily <sup>1</sup>	Wastewater loading	inches/day	Calculated
Daily <sup>1</sup>	Precipitation	inches	Rain gage <sup>2</sup>
Monthly	Total hydraulic loading <sup>3</sup>	inches/acre-month	Calculated

1. When discharging and while wastewater is applied to the spreading area.

2. National Weather Service or CIMIS data from the nearest weather station is acceptable.

3. Combined loading from wastewater, and precipitation.

The Discharger shall also inspect the land spreading area monthly throughout the wet season (October through April) and write visual observations in a bound logbook. Evidence of erosion, field saturation, runoff, or the presence of nuisance conditions (i.e., burrows, odors, ponding, etc.) shall be noted in the logs and included as part of the quarterly monitoring reports.

## **GROUNDWATER MONITORING**

After measuring water levels and prior to collecting samples, each monitoring well shall be adequately purged to remove water that has been standing within the well screen and casing that may not be chemically representative of formation water. Depending on the hydraulic conductivity of the geologic setting, the volume removed during purging is typically from 3 to 5 well casing volumes.

The Discharger shall monitor the wells around the Upper and Lower Ponds W-9 and W-10 as follows:

Frequency	Constituent/Parameter	<u>Units</u>	Sample Type
Monthly	Depth-to-Water	Feet <sup>1</sup>	Measured
Monthly	Groundwater Elevation <sup>2</sup>	Feet <sup>1</sup>	Calculated
Monthly	Separation Distance <sup>3</sup>	Feet	Calculated

MONITORING AND REPORTING PROGRAM NO. R5-2016-0035 SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL

Frequency	Constituent/Parameter	<u>Units</u>	Sample Type
Semi-Annually <sup>4</sup>	рН	pH units	Grab
Semi-Annually <sup>4</sup>	EC	umhos/cm	Grab
Semi-Annually <sup>4</sup>	Chemical Oxygen Demand (COD)	mg/L	Grab
Semi-Annually <sup>4</sup>	Total Organic Carbon	mg/L	Grab
Semi-Annually <sup>4</sup>	Tannin & Lignin	mg/L	Grab
Semi-Annually <sup>4</sup>	Arsenic	ug/L	Grab
Semi-Annually <sup>4</sup>	Barium	ug/L	Grab
Semi-Annually <sup>4</sup>	General Minerals <sup>5</sup>	Various	Grab

1. To the nearest hundredth foot.

2. Groundwater elevation shall be calculated based on depth-to-water measurements from a surveyed measuring point.

3. Separation distance beneath each pond shall be determined by subtracting the groundwater elevation beneath the pond from the invert elevation of each pond (Upper and Lower Pond).

4. Samples to be collected in April and October.

5. General mineral analysis shall include, alkalinity (as CaCO3), bicarbonate (as CaCO3), boron, calcium, carbonate (CaCO3), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, potassium, sodium, sulfate, and TDS. Samples collected for metals shall be filtered with a 0.45 micron filter prior to preservation, digestion, and analysis.

The Discharger shall monitor the additional monitoring wells in its monitoring well network GW-1 through GW-5 and any subsequent additional monitoring wells as follows:

Frequency	Constituent/Parameter	<u>Units</u>	Sample Type
Semi-Annually <sup>3</sup>	Depth-to-Water	Feet <sup>1</sup>	Measured
Semi-Annually <sup>3</sup>	Groundwater Elevation <sup>2</sup>	Feet	Calculated
Semi-Annually <sup>3</sup>	рН	pH units	Grab
Semi-Annually <sup>3</sup>	EC	umhos/cm	Grab
Semi-Annually <sup>3</sup>	Chemical Oxygen Demand (COD)	mg/L	Grab
Semi-Annually <sup>3</sup>	Total Organic Carbon	mg/L	Grab
Semi-Annually <sup>3</sup>	Tannin & Lignin	mg/L	Grab
Semi-Annually <sup>3</sup>	Arsenic	ug/L	Grab
Semi-Annually <sup>3</sup>	Barium	ug/L	Grab
Semi-Annually <sup>3</sup>	General Minerals <sup>4</sup>	Various	Grab

1. To the nearest hundredth foot.

2. Groundwater elevation shall be calculated based on depth-to-water measurements from a surveyed measuring point.

3. Samples to be collected in April and October.

4. General mineral analysis shall include, alkalinity (as CaCO3), bicarbonate (as CaCO3), boron, calcium, carbonate (CaCO3), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, potassium, sodium, sulfate, and TDS. Samples collected for metals shall be filtered with a 0.45 micron filter prior to preservation, digestion, and analysis.

The Discharger shall maintain its groundwater monitoring well network. If a groundwater monitoring well(s) is dry for more than four consecutive sampling events, the Discharger shall submit a work plan and proposed time schedule to replace the well(s). The well(s) shall be replaced following Executive Officer approval of the work plan and time schedule.

## REPORTING

MONITORING AND REPORTING PROGRAM NO. R5-2016-0035 SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL TUOLUMNE COUNTY

All monitoring results shall be reported in **Quarterly Monitoring Reports**, which are due by the first day of the second month after the calendar quarter. Therefore, monitoring reports are due as follows:

First Quarter Monitoring Report:1 MaySecond Quarter Monitoring Report:1 AugustThird Quarter Monitoring Report:1 NovemberFourth Quarter Monitoring Report:1 February.

The Central Valley Water Board has gone to a Paperless Office System. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: centralvalleyfresno@waterboards.ca.gov. Documents that are 50MB or larger should be transferred to a disk and mailed to the appropriate regional water board office, in this case 1685 E Street, Fresno, CA, 93706.

To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

Program: Non-15, WDID: 5C552019001, Facility Name: Chinese Camp Mill, Order: R5-2016-0035

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly, whether the Discharger complies with waste discharge requirements. In addition to the details specified in Standard Provision C.3, monitoring information shall include the method detection limit (MDL) and the Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

Laboratory analysis reports do not need to be included in the monitoring reports; however, the laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3.

All monitoring reports shall comply with the signatory requirements in Standard Provision B.3. For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

All monitoring reports that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. In the future, the State or Central Valley Water Board may notify the Discharger to electronically submit and upload monitoring reports using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site http://www.waterboards.ca.gov/ciwqs/index.html or

A. All Quarterly Monitoring Reports shall include the following:

# **Pond Monitoring Reporting:**

1. Tabulated results of pond monitoring specified on pages 2 and 3.

# Surface Water Reporting

1. The results of the surface water monitoring of Six-Bit Gulch Creek specified on page 3. If no water is flowing in the creek, the creek shall be reported as dry for that month.

# Supply Water Reporting

- 1. The results of the supply water monitoring specified on pages 3 and 4. If multiple sources are used the Discharger, shall calculate the flow-weighted average concentrations for the specified constituents. Results must include supporting calculations, if required.
- 2. Cumulative volume of water added to the ponds for the log deck sprinkler system.

# Land Spreading Area Reporting:

- 1. The results of monitoring and loading calculations specified on page 4.
- 2. Calculation of the hydraulic load for wastewater and precipitation to the spreading area in gallons and/or acre-feet.
- 3. A summary of the notations made in the observation log book during each quarter. The entire contents of the log do not need to be submitted.
- 4. For the third quarter monitoring report, provide the results of the annual pre-wet season inspection of the land spreading area. The report shall include details and a time schedule to implement any repairs, if required.

# **Groundwater Reporting:**

- The result of groundwater monitoring specified on pages 4 and 5. If there is 1. insufficient water in the well(s) for sampling, the monitoring well(s) shall be reported as dry for that sampling event.
- 2. Table showing groundwater depth, elevation, and separation distances for the monitoring wells around the ponds for the five previous years, up through the present quarter.
- 3. A groundwater contour map based on groundwater elevations for the most recent sampling event. The map shall show the gradient and direction of groundwater flow. The map shall also include locations of all monitoring wells and wastewater storage and application areas.
- **B.** Fourth Quarter Monitoring Reports, in addition to the above, shall include the following:

# Facility Information:

- 1. The names and telephone numbers of persons to contact regarding the discharge for emergency and routine situations.
- 2. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations (Standard Provision C.4).
- 3. A summary of any changes in processing that might affect waste characterization and/or discharge flow rates.
- 4. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with WDRs Order R5-2016-0035.

# **Solids Reporting**

- 1. Annual production totals for solids (excluding trash and recyclables) including ash, shavings, saw dust, and sludge removed from the bottom of the ponds in dry tons or cubic yards.
- 2. A description of disposal methods, including the following information related to the disposal methods used. If more than one method is used, include the percentage disposed of by each method.
  - a. For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.
  - b. For land application, include: the location of the site (field identification), and the Order number of any WDRs that regulate it.
  - c. For incineration, include: the name and location of the site where incineration occurs, the Order number of WDRs that regulate the site, the disposal method of ash, and the name and location of the facility receiving ash (if applicable).
  - d. For composting, include: the location of the site, and the Order number of any WDRs that regulate it.
  - e. For animal feed, include: the location of the site, and the Order number of any WDRs that regulate it.

The Discharger shall implement the above monitoring program on the first day of the quarter following adoption of this Order.

Ordered by:	Original Signed by:				
	PAMELA C. CREEDON, Executive Officer				
	21 April 2016				
	(Date)				

# GLOSSARY

BOD₅	Five-day biochemical o>	Five-day biochemical oxygen demand					
COD	Chemical oxygen demand						
DO	Dissolved oxygen						
EC	Electrical conductivity at	t 25° C					
FDS	Fixed dissolved solids						
NTU	Nephelometric turbidity	unit					
TKN	Total Kjeldahl nitrogen						
TDS	Total dissolved solids						
TSS	Total suspended solids						
Continuous	The specified paramete	r shall be measured by a	a meter continuou	usly.			
24-Hour Composite	Unless otherwise specif composite consisting of	ied or approved, sample at least eight aliquots.	s shall be a flow-	proportioned			
Daily	Samples shall be collec	ted every day.					
Twice Weekly	Samples shall be collec	ted at least twice per we	ek on non-conse	cutive days.			
Weekly	Samples shall be collec	ted at least once per we	ek.				
Twice Monthly	Samples shall be collec weeks.	ted at least twice per mo	onth during non-c	onsecutive			
Monthly	Samples shall be collect	ted at least once per mo	nth.				
Bimonthly	Samples shall be collec year) during non-consec	ted at least once every t cutive months	wo months (i.e., s	six times per			
Quarterly	Samples shall be collected at least once per calendar quarter. Unless otherwise specified or approved, samples shall be collected in January, April, July, and October.						
Semiannually	Samples shall be collected at least once every six months (i.e., two times per year). Unless otherwise specified or approved, samples shall be collected in April and October						
Annually	Samples shall be collec specified or approved, s	Samples shall be collected at least once per year. Unless otherwise specified or approved, samples shall be collected in July					
mg/L	Milligrams per liter		-				
mL/L	Milliliters [of solids] per l	iter					
µg/L	Micrograms per liter						
µmhos/cm	Micromhos per centime	ter					
mgd	Million gallons per day						
MPN/100 mL	Most probable number [	of organisms] per 100 m	nilliliters				
General Minerals	Analysis for General Mi	nerals shall include at lea	ast the following:				
	Alkalinity (as CaCo3) Bicarbonate (as CaCO3 Boron Calcium	Carbonate (as CaCO3) Chloride Hardness Iron	) Magnesium Manganese Nitrate Phosphate	Potassium Sodium Sulfate TDS			
	General Minerals analyses shall be accompanied by documentation of cation/anion balance.						

#### INFORMATION SHEET

ORDER R5-2016-0035 SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL TUOLUMNE COUNTY

## Background

Sierra Pacific Industries (hereafter SPI or Discharger) owns and operates a lumber mill (Facility) at 14333 Perricone Road near Chinese Camp in Tuolumne County. The Facility manufactures, stores, and distributes wood products made from logs brought to the Facility. Major features include a 31-acre paved log deck, lumber mill, planner building, lumber storage areas, distribution and staging areas, vehicle maintenance and fueling areas, and an administrative building. On-site operations consist of log storage, debarking, cutting, and lumber storage.

The Facility is currently regulated by Waste Discharge Requirements (WDRs) Order 97-132, which authorizes the discharge of wastewater from its industrial storm water runoff and log deck irrigation system to two on-site ponds.

In March 2004, the Discharger submitted a Report of Waste Discharge (RWD) for the discharge of process wastewater and storm water runoff from the Facility's log deck and sawmill to 10 acres of adjacent pasture. On 16 January 2015, the Discharger submitted a Feasibility Analysis with a revised water balance to switch the land spreading area from the adjacent pasture to approximately 3.5 acres of unpaved land in the former log deck area within the Facility.

# **Facility and Discharge**

The Facility processes approximately 80 million board feet annually. Logs are delivered by truck to the sawmill and stacked on a 31-acre paved area (log deck). Bark is removed from the logs through a mechanical debarking process. Following bark removal, the logs are cut, and sized for shipment. In 2006, the planer equipment as well as the kilns and associated boilers were removed from the site. In addition, between 2007 and 2008 the log deck was moved from its former unpaved area west of the sawmill to its current paved location south and east of the sawmill. These changes have resulted in less forklift traffic and improved overall efficiency resulting in reduce impacts from industrial activities.

The Facility uses a re-circulating log deck sprinkler system year-round as part of its operation to maintain moisture conditions on the logs. There are two water storage ponds maintained on-site identified as the Upper and Lower Ponds. Water stored in the Upper Pond, adjacent to and east of the paved log deck, is part of the log deck sprinkler system. Excess water from the log deck flows back into the Upper Pond for reuse. In the absence of storm water refilling the Upper Pond, groundwater is pumped into the Upper Pond to replace water that is lost due to sprinkling and evaporation. During major precipitation events the sprinkler system is shut off and the Upper Pond is used to capture storm water runoff from the log deck and industrial areas around the sawmill. Excess storm water runoff is discharged to the Lower Pond, just east of the Upper Pond. Log deck runoff contains bark, sawdust, tannins and lignins, dissolved organics, and settleable and suspended solids. No chemicals are added to the log deck sprinkler system.

#### INFORMATION SHEET, ORDER R5-2016-0035 SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL TUOLUMNE COUNTY

In dry weather, groundwater from an on-site supply well (W-2) is used to provide make up water for the log deck sprinkler system. Well W-2 is constructed into the bedrock fractured aquifer and screened from about 68 to 339 feet below ground surface (bgs). An additional supply well adjacent to the truck scales, identified as LD-1, may also be used to supplement water for the log deck sprinkler system if well W-2 is insufficient.

The table below presents average concentrations from samples collected from the Upper and Lower Ponds as well as the supply well W-2 for January 2012 through July 2015.

Parameters	Units	Upper Pond	Lower Pond <sup>1</sup>	Supply Well (W-2)	
рH	pH units	7.5 <sup>2</sup>	7.7 <sup>2</sup>	<b>7</b> .4 <sup>2</sup>	
Electrical Conductivity (EC)	umhos/cm	743	514	796	
Total Dissolved Solids (TDS)	mg/L	536	380	507	
BOD <sub>5</sub> <sup>3</sup>	mg/L	14.5	8.6	n/a	
Bicarbonate	mg/L	290	195	345	
Calcium	mg/L	28	26	30	
Magnesium	mg/L	64	40	82	
Sodium	mg/L	20	15	23	
Chloride	mg/L	64	39	58	
Sulfate	mg/L	3.9	6.1	8.4	
Boron	mg/L	0.24	0.28	0.09	
Iron	mg/L	0.76	0.57	0.05	
Manganese	mg/L	0.43	0.21	0.15	
Aluminum	mg/L	1.7	0.25	<0.05	
Arsenic	ug/L	3.2	3.1	2.5	
Total Organic Carbon (TOC)	mg/L	44	26	9.9	
Tannin & Lignin	mg/L	9.6	4.1	1.8	

#### TABLE 1. Wastewater Quality

<sup>1.</sup> Average of 4 samples, since the Lower Pond was predominantly dry during this time period.

<sup>2.</sup> Median pH.

<sup>3</sup> 5-day Biochemical Oxygen Demand.

## Solids

Solids generated during sawmill operations include twigs, bark, chips, shavings, and saw dust. According to the Discharger, chips are processed, stored on paved area adjacent to the sawmill, and sold for use in landscaping. The remaining materials are stored on an unpaved area near the southwest corner of the Facility until sold or shipped off-site for use as biofuel, soil amendment, or landscaping.

The Upper Pond is dredged, as needed, to remove solids and organic debris from the bottom of the pond. Current practice is to place the dredged material on the bank of the pond to build it up and so that the liquid drains back into the pond, which could lead to odor and nuisance conditions. This Order requires the Discharger to prepare a Solids Management Plan to identify potential disposal methods or reuse options and select an appropriate method to dispose of the dredged material from the ponds.

## **Proposed Changes**

Historically, there have been instances in wet years when the ponds have overflowed and discharged a combination of wastewater and storm water runoff from industrial operations at the Facility into the adjacent Six-Bit Gulch Creek during periods of heavy precipitation. To prevent overflow of wastewater from the log deck and industrial storm water runoff from the sawmill operations, the Discharger began segregating the storm water runoff from its log deck and sawmill operations from other storm water drainages and began looking into land disposal options.

The Discharger contracted with a nearby property owner to discharge excess water from its Lower Pond to an adjacent 10-acre pasture. However, there were problems with the adjacent property owner and maintaining the berms to prevent runoff from the pasture area to nearby Six-Bit Gulch Creek and other surface water drainages. In January 2015, the Discharger submitted a Feasibility Analysis to switch the land spreading area from the adjacent pasture to unpaved land within the Facility boundaries. The Feasibility Analysis proposes to spread excess water from the Upper and Lower Ponds to approximately 3.5 acres of unpaved land within the former log deck area south of the sawmill.

The water balance submitted with the Feasibility Analysis used to model storage and disposal capacity at the Facility, was based on the containment of all wastewater and storm water runoff during a 100-year wet year. However, as discussed later under groundwater conditions high groundwater may infiltrate the ponds during wet years, which is not discussed in the Feasibility Analysis, and may decrease infiltration and storage capacity of the ponds. Therefore, this Order requires the Discharger to submit a technical report to demonstrate that sufficient capacity exists to contain all wastewater and storm water runoff on-site in the event of high groundwater and to document that all runoff controls and procedures are in place and operational.

## **Groundwater Conditions**

Groundwater is first encountered beneath the site in the shallow alluvium from 3 to 30 feet bgs. Deeper groundwater is present in the fractured bedrock beneath the site. Groundwater in the shallow alluvium generally flows to the south-southwest, which is consistent with site topography.

Two monitoring wells W-9 and W-10 installed at depths of 35 and 27 feet bgs, respectively in the shallow alluvium are used to monitor groundwater in the vicinity of the ponds. In 2004 the Discharger installed monitoring wells GW-1 through GW-4 to expanded its groundwater monitoring well network both up-gradient and down-gradient of the wastewater storage ponds. GW-5 was installed in November 2014 to define the lateral extent of groundwater degradation down-gradient of the ponds.

Shallow groundwater is strongly influenced by recharge from rainfall, water stored in the ponds, and flows in the adjacent Six-Bit Gulch Creek, resulting in significant seasonal fluctuations especially in the monitoring wells around the ponds. A comparison of groundwater elevations taken from W-9 and W-10 from January 2011 to July 2015, with the

#### INFORMATION SHEET, ORDER R5-2016-0035 SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL TUOLUMNE COUNTY

elevation of the bottom of the Lower Pond (1,165.53 feet above mean sea level) as depicted in the graph below shows that occasionally groundwater levels rise above the bottom of the pond during wet years in the winter and early spring when groundwater recharge is high.



The bottom elevation of the Upper Pond is not known, so it is not clear if this occurs in the Upper Pond as well. This Order requires the Discharger to determine the bottom elevation of the Upper Pond and re-configure the Upper Pond, if necessary, to ensure groundwater does not infiltrate into the pond and mix with the wastewater.

As shown in Table 2 below, groundwater monitoring shows some degradation around and down-gradient of the ponds, but except for manganese, concentrations are still below water quality objectives. Manganese concentrations in excess of the secondary Maximum Contaminant Level (MCL) appear to be centered around the ponds, and are likely due to excessive organic material and reducing conditions beneath the ponds. Manganese concentrations appear to decrease as groundwater moves away from the ponds, and is just at the detection limit of 0.02 mg/L in GW-5 (down-gradient monitoring well furthest from the ponds).

Constituent	Units	Up-Gradient		Around Ponds		Down-gradient			MCLs
		GW-1	GW-2	W-9	W-10	GW-3	GW-4	GW-5	
рН	s.u.	8.9	7.7	7.3	7.1	7.5	7.5	7.6	
EC	umhos/cm	377	726	729	548	630	660	500	900/1,600 <sup>1</sup>
TDS	mg/L	230	450	471	350	394	416	338	500/1,000 <sup>1</sup>
Alkalinity	mg/L	191	286	292	214	308	300	203	
Calcium	mg/L	7.9	22	29	34	16	27	33	
Magnesium	mg/L	46	70	69	40	73	67	44	

TABLE 2. Groundwater Quality (January 2012 through July 2015)

Constituent	Units	Up-Gra	dient	Around	Around Ponds Down-gradient		t	MCLs	
		GW-1	GW-2	W-9	W-10	GW-3	GW-4	GW-5	
Sodium	mg/L	45	27	20	17	7.8	12	8.5	
Potassium	mg/L	<1	1.9	9.8	11	<1	1.2	<1	
Chloride	mg/L	8.3	63	58	35	19	42	22	250/500 <sup>1</sup>
Sulfate	mg/L	3.2	7.6	8.4	10	5.6	11	15	250/500 <sup>1</sup>
Aluminum	ug/L	<50	<50	<50	<50	<50	<50	<50	1,000 <sup>2</sup>
Arsenic	ug/L	1.5	0.9	3.9	6.6	2	2.4	8.4	
Iron	mg/L	<0.2	<0.2	0.24	<0.2	<0.2	0.2	0.14	0.3 <sup>3</sup>
Manganese	mg/L	<0.02	0.16	1.23	1.61	<0.02	0.27	0.02	$0.05^{3}$
TOC	mg/L	1.8	6.2	18	8.1	3.1	5.2	5.5	
Tannin & Lignin	mg/L	<0.1	0.4	2.1	1.2	0.2	0.5	0.2	

# TABLE 2. Groundwater Quality (January 2012 through July 2015)

MCLs= Maximum Contaminant Levels for drinking water. Concentrations in bold exceed their respective MCLs.

1. Recommended/Upper Secondary MCL.

2. Primary MCL.

3. Secondary MCL.

The monitoring wells in close proximity to the ponds also show lower pH and higher concentrations of EC, TDS, TOC, potassium, and Tannin & Lignin compared to up-gradient monitoring wells. Likely due to high concentrations of wood and organic material settling in the ponds.

To minimize the potential for groundwater degradation due to wood and organic debris in the ponds, this Order requires the Discharger to prepare and implement a Solids Management Plan to ensure proper maintenance, clean-out, and disposal of settled solids from the ponds.

# Title 27

Title 27 of the California Code of Regulations, section 20005 et seq. (Title 27) contains regulations to address certain discharges to land. Title 27 establishes a waste classification system, specifies siting and construction standards for full containment of classified waste, requires extensive monitoring of groundwater and the unsaturated zone for any indication of failure of containment, and specifies closure and post-closure maintenance requirements. Generally, no degradation of groundwater quality by any waste constituent in a classified waste is acceptable under Title 27 regulations.

Unless exempt, release of designated waste is subject to full containment pursuant to Title 27 requirements. Title 27, section 20090, subdivision (b) exempts discharges of designated waste to land from Title 27 containment standards and other Title 27 requirements provided the following conditions are met:

- a. The applicable regional water board has issued waste discharge requirements, or waived such issuance;
- b. The discharge is in compliance with the applicable basin plan; and
- c. The waste is not hazardous waste and need not be managed according to Title 22, CCR, Division 4.5, Chapter 11, as a hazardous waste.

INFORMATION SHEET, ORDER R5-2016-0035 SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL TUOLUMNE COUNTY

The discharge meets the above requirements and is therefore exempt from Title 27.

## Legal Effect of Rescission of Prior WDRs or Orders on Existing Violations

The Board's rescission of prior waste discharge requirements and/or monitoring and reporting orders does not extinguish any violations that may have occurred during the time those waste discharge requirements or orders were in effect. The Central Valley Water Board reserves the right to take enforcement actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.

# **Proposed Order Terms and Conditions**

# Discharge Prohibitions, Effluent Limitations, Discharge Specifications, and Provisions

The proposed Order would prohibit discharge of wastewater and storm water from sawmill operations to surface waters and surface water drainage courses. Storm water from other areas of the Facility not covered by this Order are discharged separately under the National Pollutant Discharge Elimination System (NPDES) Industrial Storm Water General Permit.

The proposed Order would require that all conveyance, treatment, storage, and disposal systems be designed constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency, and require that the pH in the Upper and Lower Ponds be maintained between 6.5 and 8.5.

The proposed Order would also include provisions requiring the Discharger to ensure that the disposal area has sufficient capacity to handle wastewater and storm water runoff during a 100-year wet year, document that all runoff controls and procedures are in place and operating, evaluate and reconfigure the Upper Pond to ensure that high groundwater will not intersect the bottom of the pond, and prepare a Solids Management Plan.

The proposed Order would prescribe groundwater limitations that implement water quality objectives for groundwater from the Basin Plan. The limitations require that the discharge not cause or contribute to exceedance of these objectives or natural background water quality, whichever is greatest, and sets a specific limit for NO<sub>3</sub>-N of 10 mg/L consistent with the Primary MCL.

# **Monitoring Requirements**

Section 13267 of the CWC authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impact of waste discharges on waters of the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate.

INFORMATION SHEET, ORDER R5-2016-0035 SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL TUOLUMNE COUNTY

The proposed Order includes pond, source water, land spreading area, and groundwater monitoring. This monitoring is necessary to evaluate the potential for degradation resulting from the discharge.

## Reopener

The conditions of discharge in the proposed Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. The proposed Order would set limitations based on the information provided thus far. If applicable laws and regulations change, or once new information is obtained that will change the overall discharge and its potential to impact groundwater, it may be appropriate to reopen the Order.



WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0035 FOR SIERRA PACIFIC INDUSTRIES CHINESE CAMP MILL TUOLUMNE COUNTY

ATTACHMENT A

## CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

# STANDARD PROVISIONS AND REPORTING REQUIREMENTS FOR WASTE DISCHARGE REQUIREMENTS

## 1 March 1991

## A. General Provisions:

- 1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, or protect the Discharger from liabilities under federal, state, or local laws. This Order does not convey any property rights or exclusive privileges.
- 2. The provisions of this Order are severable. If any provision of this Order is held invalid, the remainder of this Order shall not be affected.
- 3. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
  - a. Violation of any term or condition contained in this Order;
  - b. Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;
  - c. A change in any condition that results in either a temporary or permanent need to reduce or eliminate the authorized discharge;
  - d. A material change in the character, location, or volume of discharge.
- 4. Before making a material change in the character, location, or volume of discharge, the discharger shall file a new Report of Waste Discharge with the Regional Board. A material change includes, but is not limited to, the following:
  - a. An increase in area or depth to be used for solid waste disposal beyond that specified in waste discharge requirements.
  - b. A significant change in disposal method, location or volume, e.g., change from land disposal to land treatment.
  - c. The addition of a major industrial, municipal or domestic waste discharge facility.
  - d. The addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the waste.

- 5. Except for material determined to be confidential in accordance with California law and regulations, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Board. Data on waste discharges, water quality, geology, and hydrogeology shall not be considered confidential.
- 6. The discharger shall take all reasonable steps to minimize any adverse impact to the waters of the state resulting from noncompliance with this Order. Such steps shall include accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliance.
- 7. The discharger shall maintain in good working order and operate as efficiently as possible any facility, control system, or monitoring device installed to achieve compliance with the waste discharge requirements.
- 8. The discharger shall permit representatives of the Regional Board (hereafter Board) and the State Water Resources Control Board, upon presentations of credentials, to:
  - a. Enter premises where wastes are treated, stored, or disposed of and facilities in which any records are kept,
  - b. Copy any records required to be kept under terms and conditions of this Order,
  - c. Inspect at reasonable hours, monitoring equipment required by this Order, and
  - d. Sample, photograph and video tape any discharge, waste, waste management unit, or monitoring device.
- 9. For any electrically operated equipment at the site, the failure of which would cause loss of control or containment of waste materials, or violation of this Order, the discharger shall employ safeguards to prevent loss of control over wastes. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means.
- 10. The fact that it would have been necessary to halt or reduce the permitted activity in Order to maintain compliance with this Order shall not be a defense for the discharger's violations of the Order.
- 11. Neither the treatment nor the discharge shall create a condition of nuisance or pollution as defined by the California Water Code, Section 13050.
- 12. The discharge shall remain within the designated disposal area at all times.

# **B.** General Reporting Requirements:

 In the event the discharger does not comply or will be unable to comply with any prohibition or limitation of this Order for any reason, the discharger shall notify the Board by telephone at (916) 464-3291 [Note: Current phone numbers for all three Regional Board offices may be found on the internet at http://www.swrcb.ca.gov/rwqcb5/contact\_us.] as soon as it or its agents have knowledge of such noncompliance or potential for noncompliance, and shall confirm this notification in writing within **two weeks**. The written notification shall state the nature, time and cause of noncompliance, and shall include a timetable for corrective actions.

2. The discharger shall have a plan for preventing and controlling accidental discharges, and for minimizing the effect of such events.

This plan shall:

- a. Identify the possible sources of accidental loss or leakage of wastes from each waste management, treatment, or disposal facility.
- b. Evaluate the effectiveness of present waste management/treatment units and operational procedures, and identify needed changes of contingency plans.
- c. Predict the effectiveness of the proposed changes in waste management/treatment facilities and procedures and provide an implementation schedule containing interim and final dates when changes will be implemented.

The Board, after review of the plan, may establish conditions that it deems necessary to control leakages and minimize their effects.

- 3. All reports shall be signed by persons identified below:
  - a. <u>For a corporation</u>: by a principal executive officer of at least the level of senior vice-president.
  - b. <u>For a partnership or sole proprietorship</u>: by a general partner or the proprietor.
  - c. <u>For a municipality, state, federal or other public agency</u>: by either a principal executive officer or ranking elected or appointed official.
  - d. A duly authorized representative of a person designated in 3a, 3b or 3c of this requirement if;
    - (1) the authorization is made in writing by a person described in 3a, 3b or 3c of this provision;
    - (2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a waste management unit, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
    - (3) the written authorization is submitted to the Board

Any person signing a document under this Section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of the those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

- 4. Technical and monitoring reports specified in this Order are requested pursuant to Section 13267 of the Water Code. Failing to furnish the reports by the specified deadlines and falsifying information in the reports, are misdemeanors that may result in assessment of civil liabilities against the discharger.
- 5. The discharger shall mail a copy of each monitoring report and any other reports required by this Order to:

California Regional Water Quality Control Board Central Valley Region 11020 Sun Center Drive, #200 Rancho Cordova, CA 95670-6114 *Note: Current addresses for all three Regional Board offices may be found on the internet at http://www.swrcb.ca.gov/rwqcb5/contact\_us.* or the current address if the office relocates.

# **C.** Provisions for Monitoring:

- 1. All analyses shall be made in accordance with the latest edition of: (1) *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA 600 Series) and (2) *Test Methods for Evaluating Solid Waste* (SW 846-latest edition). The test method may be modified subject to application and approval of alternate test procedures under the Code of Federal Regulations (40 CFR 136).
- 2. Chemical, bacteriological, and bioassay analysis shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the discharger, analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Board staff. The Quality Assurance-Quality Control Program must conform to EPA guidelines or to procedures approved by the Board.

Unless otherwise specified, all metals shall be reported as Total Metals.

3. The discharger shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to

complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

Record of monitoring information shall include:

- a. the date, exact place, and time of sampling or measurements,
- b. the individual(s) who performed the sampling of the measurements,
- c. the date(s) analyses were performed,
- d. the individual(s) who performed the analyses,
- e. the laboratory which performed the analysis,
- f. the analytical techniques or methods used, and
- g. the results of such analyses.
- 4. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated at least yearly to ensure their continued accuracy.
- 5. The discharger shall maintain a written sampling program sufficient to assure compliance with the terms of this Order. Anyone performing sampling on behalf of the discharger shall be familiar with the sampling plan.
- 6. The discharger shall construct all monitoring wells to meet or exceed the standards stated in the State Department of Water Resources *Bulletin 74-81* and subsequent revisions, and shall comply with the reporting provisions for wells required by Water Code Sections 13750 through 13755.22

# D. Standard Conditions for Facilities Subject to California Code of Regulations, Title 23, Division3, Chapter 15 (Chapter 15)

- 1. All classified waste management units shall be designed under the direct supervision of a California registered civil engineer or a California certified engineering geologist. Designs shall include a Construction Quality Assurance Plan, the purpose of which is to:
  - a. demonstrate that the waste management unit has been constructed according to the specifications and plans as approved by the Board.
  - b. provide quality control on the materials and construction practices used to construct the waste management unit and prevent the use of inferior products and/or materials which do not meet the approved design plans or specifications.
- 2. Prior to the discharge of waste to any classified waste management unit, a California registered civil engineer or a California certified engineering geologist must certify that the waste management unit meets the construction or prescriptive standards and performance goals in Chapter 15, unless an engineered alternative has been approved by the Board. In the case of an engineered alternative, the registered civil engineer or a certified engineering geologist must

certify that the waste management unit has been constructed in accordance with Board-approved plans and specifications.

- 3. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of discharged wastes over the operating life, closure, and post-closure maintenance period of the waste management units.
- 4. Closure of each waste management unit shall be performed under the direct supervision of a California registered civil engineer or a California certified engineering geologist.

# E. Conditions Applicable to Discharge Facilities Exempted from Chapter 15 Under Section 2511

- 1. If the discharger's wastewater treatment plant is publicly owned or regulated by the Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to California Code of Regulations, Title 23, Division 4, Chapter 14.
- 2. By-pass (the intentional diversion of waste streams from any portion of a treatment facility, except diversions designed to meet variable effluent limits) is prohibited. The Board may take enforcement action against the discharger for by-pass unless:
  - a. (1) By-pass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that 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 by-pass. Severe property damage does not mean economic loss caused by delays in production); and
    - (2) There were no feasible alternatives to by-pass, such as the use of auxiliary treatment facilities or retention of untreated waste. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a by-pass that would otherwise occur during normal periods of equipment downtime or preventive maintenance; or
  - b. (1) by-pass is required for essential maintenance to assure efficient operation; and
    - (2) neither effluent nor receiving water limitations are exceeded; and
    - (3) the discharger notifies the Board ten days in advance.

The permittee shall submit notice of an unanticipated by-pass as required in paragraph B.1. above.

3. A discharger that wishes to establish the affirmative defense of an upset (see definition in E.6 below) in an action brought for noncompliance shall demonstrate, through properly signed, contemporaneous operating logs, or other evidence, that:

- a. an upset occurred and the cause(s) can be identified;
- b. the permitted facility was being properly operated at the time of the upset;
- c. the discharger submitted notice of the upset as required in paragraph B.1. above; and
- d. the discharger complied with any remedial measures required by waste discharge requirements.

In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof.

- 4. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Board by **31 January**.
- 5. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to disposal. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
- 6. Definitions
  - a. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with 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 action.
  - b. The monthly average discharge is the total discharge by volume during a calendar month divided by the number of days in the month that the facility was discharging. This number is to be reported in gallons per day or million gallons per day.

Where less than daily sampling is required by this Order, the monthly average shall be determined by the summation of all the measured discharges by the number of days during the month when the measurements were made.

- c. The monthly average concentration is the arithmetic mean of measurements made during the month.
- d. The "daily maximum" **discharge** is the total discharge by volume during any day.

- e. The "daily maximum" **concentration** is the highest measurement made on any single discrete sample or composite sample.
- f. A "grab" sample is any sample collected in less than 15 minutes.
- g. Unless otherwise specified, a composite sample is a combination of individual samples collected over the specified sampling period;
  - (1) at equal time intervals, with a maximum interval of one hour
  - (2) at varying time intervals (average interval one hour or less) so that each sample represents an equal portion of the cumulative flow.

The duration of the sampling period shall be specified in the Monitoring and Reporting Program. The method of compositing shall be reported with the results.

7. Annual Pretreatment Report Requirements:

Applies to dischargers required to have a Pretreatment Program as stated in waste discharge requirements.)

The annual report shall be submitted **by 28 February** and include, but not be limited to, the following items:

a. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the influent and effluent for those pollutants EPA has identified under Section 307(a) of the Clean Water Act which are known or suspected to be discharged by industrial users.

The discharger is not required to sample and analyze for asbestos until EPA promulgates an applicable analytical technique under 40 CFR (Code of Federal Regulations) Part 136. Sludge shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals over the 24-hour period. Wastewater and sludge sampling and analysis shall be performed at least annually. The discharger shall also provide any influent, effluent or sludge monitoring data for nonpriority pollutants which may be causing or contributing to Interference, Pass Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto.

b. A discussion of Upset, Interference, or Pass Through incidents, if any, at the treatment plant which the discharger knows or suspects were caused by industrial users of the system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the industrial user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any

additional limitations, or changes to existing requirements, may be necessary to prevent Pass Through, Interference, or noncompliance with sludge disposal requirements.

- c. The cumulative number of industrial users that the discharger has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.
- d. An updated list of the discharger's industrial users including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The discharger shall provide a brief explanation for each deletion. The list shall identify the inddustrial users subject to federal categorical standards by specifying which set(s) of standards are applicable. The list shall indicate which categorical industries, or specific pollutants from each industry, are subject to local limitations that are more stringent that the federal categorical standards. The discharger shall also list the noncategorical industrial users that are subject only to local discharge limitations. The discharger shall characterize the compliance status through the year of record of each industrial user by employing the following descriptions:
  - (1) Complied with baseline monitoring report requirements (where applicable);
  - (2) Consistently achieved compliance;
  - (3) Inconsistently achieved compliance;
  - (4) Significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);
  - (5) Complied with schedule to achieve compliance (include the date final compliance is required);
  - (6) Did not achieve compliance and not on a compliance schedule;
  - (7) Compliance status unknown.

A report describing the compliance status of any industrial user characterized by the descriptions in items (d)(3) through (d)(7) above shall be **submitted quarterly from the annual report date** to EPA and the Board. The report shall identify the specific compliance status of each such industrial user. This quarterly reporting requirement shall commence upon issuance of this Order.

e. A summary of the inspection and sampling activities conducted by the discharger during the past year to gather information and data regarding the industrial users. The summary shall include but not be limited to, a tabulation of categories of dischargers that were inspected and sampled; how many and how often; and incidents of noncompliance detected.

- f. A summary of the compliance and enforcement activities during the past year. The summary shall include the names and addresses of the industrial users affected by the following actions:
  - (1) Warning letters or notices of violation regarding the industrial user's apparent noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the federal categorical standards or local discharge limitations;
  - (2) Administrative Orders regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations;
  - (3) Civil actions regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations;
  - (4) Criminal actions regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.
  - (5) Assessment of monetary penalties. For each industrial user identify the amount of the penalties;
  - (6) Restriction of flow to the treatment plant; or
  - (7) Disconnection from discharge to the treatment plant.
- g. A description of any significant changes in operating the pretreatment program which differ from the discharger's approved Pretreatment Program, including, but not limited to, changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority of enforcement policy; funding mechanisms; resource requirements; and staffing levels.
- h. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.
- i. A summary of public participation activities to involve and inform the public.
- j. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.

Duplicate signed copies of these reports shall be submitted to the Board and:

Regional Administrator U.S. Environmental Protection Agency W-5 75 Hawthorne Street San Francisco, CA 94105

and

State Water Resource Control Board Division of Water Quality P.O. Box 100 Sacramento, CA 95812

Revised January 2004 to update addresses and phone numbers