

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2018-0029

WASTE DISCHARGE REQUIREMENTS

FOR

**SIERRA PACIFIC INDUSTRIES, INC.
ANDERSON DIVISION
SHASTA COUNTY**

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

1. On 13 June 2016, Sierra Pacific Industries, Inc. (SPI) submitted a Report of Waste Discharge to apply for new Waste Discharge Requirements (WDRs) for an existing sawmill complex and cogeneration (cogen) power plant (Facility) located in Anderson, Shasta County. Supplemental information was submitted on 31 August 2016.
2. SPI (hereafter "Discharger") owns and operates the Facility that generates the waste and manages the land discharge areas. SPI is responsible for compliance with these WDRs.
3. The Discharger's Facility is located at 19758 Riverside Avenue, approximately two miles north of the City of Anderson (Section 9, T20N, R4W, MDB&M). The Facility occupies Assessor's Parcel Numbers (APN) 050-100-015, 050-110-023, 050-110-038 and 050-110-039, as shown on Attachment A, which is attached hereto and made part of this Order by reference.
4. WDRs Order R5-2011-0090, NPDES No. CA0082066, adopted by the Central Valley Water Board on 1 December 2011, prescribes requirements for Facility wastewater discharges to the Sacramento River. The Discharger has eliminated discharge to the Sacramento River. Therefore, Order R5-2011-0090 will be rescinded and replaced with this Order.

Existing Facility and Discharge

5. The Facility consists of a 160-million board-foot sawmill, planer mill, drying kilns, wood-fired cogen boiler for generation of electric power and steam for kiln heating, paved log unloading and scaling yard, rough-cut lumber storage area, bark processing and storage area, chip loading area, log deck, fabrication shop, truck shop, paved finished lumber storage areas, warehouse, agricultural fields, storage ponds, and separate pole handling facilities which include a scaling yard, and log deck. A Facility map is shown on Attachment B.

6. The 468 MMBtu/hour biomass boiler replaced a 116 MMBtu/hour biomass boiler in August 2015. The boiler is fueled with biomass, including wood residuals from the Discharger’s Anderson Facility and the biomass market. The boiler provides steam and electrical power to operate the kilns and the 31 megawatt (MW) turbine generator provides electrical power to operate the sawmill Facility. Excess electrical power is sold via the external power grid.

7. Two onsite groundwater supply wells, Production Wells 1 and 2a, completed at 225 and 305 feet below ground surface (bgs) respectively, provide water to the Facility for industrial use and potable use. One groundwater supply well, Production Well 4, completed at 350 feet bgs, is located on an adjacent parcel south of the Facility and produces water primarily for cooling the Main Office air-conditioner. Effluent from the Main Office air conditioner system is beneficially reused at the sawmill to reduce impacts on regional groundwater. Air conditioner water passes through a heat-exchanger and flows aboveground to a pipe that discharges to a storm water pump station at the southeast corner of the sawmill, which pumps water to Pond 3. In addition to the cooling water, a 2.5-inch line conveys groundwater from Production Well 4 to the sawmill for industrial use and potable water. All three production wells are regulated by Shasta County Department of Environmental Health (SCDEH). The Discharger also has a riparian water right for Sacramento River water. Limited available source water characterization data from the Production Wells are summarized below.

Table 1: Source Water Characterization

Constituent	Units	Concentrations		
		Well #1	Well #2a	Well #4
Alkalinity ¹	mg/L	98	86	108
Bicarbonate ¹	mg/L	120	105	132
Carbonate ¹	mg/L	<5	<5	<5
Nitrate as Nitrate ²	mg/L	1.08	0.83	1.99
Metals, Total ³	µg/L	ND	ND	ND
Volatile organics ⁴	µg/L	ND	ND	ND

Data unavailable for pH, Electrical Conductivity (EC), Total Dissolved Solids (TDS), Fixed Dissolved Solids (TDS), and General Minerals (Hardness, Calcium, Magnesium, Potassium, Sodium, Chloride, Sulfate).

¹ Samples collected on 16 June 2016.

² Samples collected on 7 March 2016.

³ Samples collected on 23 December 2009 for Total Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Lead, Mercury, Nickel, Selenium, Silver and Thallium. Samples collected on 31 October 2014 for Total Chromium (VI).

⁴ Samples collected on 20 July 2015.

ND = Not detected.

8. Domestic wastewater produced at the Facility, and at the Main Office is routed to five septic tank leach field systems regulated by SCDEH.

9. The Facility operates four ponds that serve both as water sources for various processes and discharge points for industrial activities. No active wastewater treatment is performed. A process flow diagram is included in Attachment C.
10. The following Facility operations discharge to Pond 1: Cogen plant discharges include cooling tower blowdown, boiler blowdown, ash-quench water, boiler feed water and reverse osmosis (RO) system backflush. In addition, storm water from the immediate vicinity and from the west side of the Facility (chip-loading area and pole-log deck) is captured in Pond 1. Pond 1 water flows by gravity to Pond 2 (Small Fire Pond), then to the SPI Ditch, and finally to Pond 3 (Log Deck Recycle Pond) and Pond 4 (Retention Pond).
11. Pond 1 does not receive groundwater directly, however, if Pond 1 is low, Pond 2 can flow back to Pond 1. Water from all ponds and ditches is used for dust suppression, as needed.
12. Pond 2 can receive groundwater from Production Wells 1 and 2A. Water is drawn from Pond 2 for primary fire protection. No Facility operations discharge directly to Pond 2. Some storm water from the vicinity of the pole yard and cogen fuel pile is captured in Pond 2. If Pond 2 is full, water can be released from Pond 2 to the SPI Ditch.
13. The SPI Ditch conveys water from Pond 2, receives some recycled water from log-deck sprinkling and storm water runoff from the log yard, and delivers the water to Ponds 3 and 4 controlled by manual gate valves.
14. Additionally the SPI Ditch receives shallow groundwater and storm water drainage from two adjacent industrial facilities, Siskiyou Forest Products (SFP) and Shasta Renewables Resources (SRR) located west-northwest of the Facility. Local shallow groundwater may be recharged in summer months by the Anderson-Cottonwood Irrigation District (ACID) canal leakage along the west side of Highway 273 west of the Facility.
15. Pond 3 does not directly receive groundwater. Pond 3 receives storm water from the vicinity of the planer mill, stacker, cooling shed, and drying kilns, which collects in a storm water pump station at the southeast corner of the Facility. Air conditioner water from the Main Office is also pumped to this storm water pump station. Water is pumped from the storm water pump station through an above-ground pipe to a ditch that flows by gravity to Pond 3. Pond 3 also receives wastewater and storm water from the dry kilns through a subsurface culvert which discharges to a small channel that gravity flows to Pond 3. Water from Pond 3 is used to sprinkle logs in the log deck and return water is routed back to Pond 3. Process and storm water in Pond 3 can be pumped to Pond 4 for final disposal as needed.

16. Pond 4 does not receive groundwater from any production well. Water is drawn from Pond 4 for irrigation. In addition, storm water from the vicinity of the Facility is captured ultimately in Pond 4. Pond 4 water is used as needed to irrigate 130 acres of agricultural fields located directly north of the Facility and west of Pond 4. See Attachment B.
17. Cogen operations utilize additives to prevent scaling and facilitate boiler operation. These chemicals include sodium hydroxide, a water-soluble polymer, cyclohexyl amine, morpholine, and sodium hypochlorite. A complete list of chemicals used in the cogen operations is updated annually on the California Environmental Reporting System (CERS) as part of SCDEH's records.
18. Average daily cogen discharge for 2016 was approximately 81,578 gallons per day (gpd), with a peak average daily flow of 179,000 gpd recorded for the month of August 2016.
19. Chemicals used in the planer building include a mixture containing a "wood preservative," "lumber brightener," and a Kop Coat mildew control agent. A lumber end sealer is also used as needed. The materials are proprietary formulations and do not contain arsenic, pentachlorophenol, or other persistent chlorinated materials. The chemicals used in the planer system are applied in a closed loop spray system. Any excess material is collected in a catch basin and recycled. Safety Data Sheets (SDS) for all materials are held by the Discharger.
20. Cogen outfall characterization data are summarized for the years 2012 through June 2017 in the following table:

Table 2: Cogen Outfall Characterization Data

Constituent	Units	Min.	Max.	Avg.
pH	S.U.	7.19	9.27	9.0
Electrical Conductivity	µmhos/cm	476	1420	816
Total Dissolved Solids	mg/L	347	1090	613
Chloride	mg/L	7.72	57	34.7
Sodium	mg/L	41.1	80	61.1
Sulfate	mg/L	23.3	43.3	35.2
Arsenic, Total ³	µg/L	3	48.3	15.0
Chromium, Total ³	µg/L	0.9	3.1	1.9
Copper, Total ³	µg/L	1.3	7.2	3.7
Mercury, Total ³	µg/L	0.0005	0.0035	0.0021
VOCs and SVOCs ^{1,2}	µg/L	ND ^{1,2}	ND ^{1,2}	ND ^{1,2}

Notes: S.U. = Standard Units. ND = Not detected.

¹ Asbestos, 2,3,7,8-TCDD and chlorinated pesticides and polychlorinated biphenyls (PCBs) have not been detected. Occasional volatile organic compounds (VOCs) detected (typically below the reporting limit) include bromodichloromethane, chloromethane, chloroform, dibromochloromethane and toluene.

² Occasional semivolatile organic compound (SVOC) detections below the reporting limit include butyl benzyl phthalate, di-n-butyl phthalate, di-n-octyl phthalate, 2,4,6-trichlorophenol and pentachlorophenol.

³ All metals concentrations represent total recoverable metals concentrations. This permit requires dissolved concentrations.

21. All ponds are unlined and allow discharge to groundwater. Ponds 3 and 4 are deeper than Ponds 1, 2, and the SPI Ditch. Seasonally groundwater rises and mixes with water in Ponds 3 and 4.
22. Previous WDRs included pond sampling for Ponds 1, 3, and 4 which each receive unique waste streams. Characterization data and pond dimensions are summarized in Tables 3 and 4:

Table 3: Pond Water Characterization. Average values for 2012-2017 period.

Constituent	Units	Pond 1	Pond 3	Pond 4	WQO
pH	S.U.	9.1	7.5	7.4	6.5-8.5 ¹
Electrical Conductivity	µmhos/cm	294	201	180	700 ¹
Total Dissolved Solids	mg/L	160	161	129	500 ¹
Chloride	mg/L	7.1	9.3	6.3	250 ¹
Sodium	mg/L	16	12	10	20 ¹
Sulfate	mg/L	11.9	4.6	6.5	250 ¹
Arsenic, total	µg/L	1.6	2.0	1.2	10 ²
Chromium, total	µg/L	1.0	2.0	0.8	50 ²
Copper, total	µg/L	3.6	3.9	1.6	1,000 ¹
Mercury, total	µg/L	0.0016	0.0044	0.0020	2 ²

¹ Secondary Maximum Contaminant Level (MCL)

² Primary MCL.

Table 4: Storage Pond Dimensions

Pond Name	Surface Area (ac)	Depth (ft)	Total Volume (ac-ft)	Volume @ 2-ft Freeboard (ac-ft)
Pond 1	3.81	8	22.5	17.5
Pond 2	0.53	8	2.5	1.5
Pond 3	0.83	12	5.3	4.1
Pond 4	9.90	12	108.1	94.6

23. The cogen plant produces wood fly and bottom ash at an estimated rate of 8,065 green tons per year. Wood fly and bottom ash are quenched with groundwater and discharged into dump trucks for direct delivery to the agricultural fields. In wet weather conditions ash is temporarily stockpiled in a staging area located directly north of Pond 4. The ash is subsequently spread and tilled into 130 acres of agricultural fields according to procedures established in the Facility's June 2015 Ash Management Plan.
24. Composite samples of the ash material are analyzed quarterly to verify that it is nonhazardous waste. Application volumes and areas are reported with the laboratory data. Land application areas (LAAs) are divided into five areas known as Fields A through E, shown in Attachment B. In 2016 the Discharger produced 4,447 green tons of ash (approximately 1,676 bone dry tons) and sold 48.4 green tons of ash to third parties to be used as a soil amendment. The Discharger applied the remaining ash to Fields C and D, which total 26.5 acres and an approximate rate of application of 63.3 bone dry tons per acre. The June 2015 Ash Management Plan determined application rates up to 100 bone dry tons per acre were suitable for alfalfa growth.
25. The 130-acre parcel at the north end of the Facility is farmed with alfalfa and irrigated with water from Pond 4. When additional water is needed for irrigation, a manual gate is opened to draw water into Pond 4 from an ACID canal lateral that runs along the western and southern edge of the agricultural fields. Historically the Discharger has not measured supplemental water use.
26. Irrigation is rotated over each application area as needed over a six-month period during the dry season. Historically annual irrigation volumes have been estimated at an application depth of approximately 7 to 8 inches, which is the textbook evapotranspiration (ET) rate for alfalfa. In 2016 approximately 23.3 million gallons (MG) water were applied to 120.5 acres of alfalfa over a 3.5 month period.
27. During heavy rainfall, tailwater drains to the south end of the agricultural fields, and may form temporary ponds before infiltrating to groundwater.
28. The Discharger has contained all process and storm water onsite without discharge to the Sacramento River since 2009 with one exception. In January 2017 a drainage canal became plugged which flooded the ACID canal lateral and the agricultural fields. Excess water discharged to Pond 4 causing it to overtop its berms and discharge to the Sacramento River. Subsequently the Discharger has filled low spots in Pond 4 berms and added routine inspections of the northwest area to the Facility's maintenance program to prevent a recurrence.

Site-Specific Conditions

29. The Facility is located at an elevation of 420 to 440 feet above mean sea level (MSL) and is relatively flat and level. The western portion of the Facility is approximately 12 to 20 feet higher in elevation. The majority of the Facility gently slopes to the east toward the Sacramento River. Spring Creek serves as the southern boundary of the Facility and flows east to the Sacramento River. Spring Creek flows seasonally and receives recharge from the ACID canal in summer months.
30. Based upon the Federal Emergency Management Agency's (FEMA) Flood insurance rate map (Community-Panel Number 0603582980F, revised June 16, 2006), most of the Facility, which includes the four ponds, is situated within the 500-year floodplain. Although eastern portions of the SPI Ditch, Ponds 3 and 4, and Field A are located within the 100-year floodplain, a survey conducted by Astro Surveying on 6 October 2011 reported that the lowest ground elevations around all ponds and watercourses is at least 1-foot above the 100-year floodplain.
31. According to the U.S. Department of Agriculture's Web Soil Survey, the predominant soil type at the Facility beneath the agricultural fields and the main log deck area in the northern and eastern portions of the Facility is the Reiff fine sandy loam. The Reiff sandy loam is a very well-drained soil with a very low potential for runoff. Beneath the southern and western portions of the Facility, the Churn gravelly loam soil predominates, which is also well-drained but has a medium runoff potential.
32. The average annual precipitation for the area is approximately 38 inches. The 100-year, 365-day precipitation is approximately 61 inches. A 24-hour, 100-year storm event for this area is approximately 7.2 inches. The annual pan evaporation rate is approximately 64 inches.
33. The surrounding land use in the vicinity of the Facility consists of industrial/commercial property to the southeast, residential areas west-southwest of the Facility across Highway 273, a riparian corridor and the Sacramento River to the northeast, and the agricultural land owned by the Discharger to the northwest where alfalfa is grown and harvested.

Groundwater Conditions

34. The Facility is located in the southern part of the Redding basin, the northernmost sub-basin of the Sacramento Valley basin. The Redding basin is filled with Tertiary-age sediments that are thickest in the central part of the valley and thin to the north, east, and west. Drilling logs report that the Facility is underlain by low permeability silty sand to sandy silt units, which in turn are underlain by a sequence of gravels and cobbles interbedded with clay layers from approximately 30 feet below ground surface (bgs) to a maximum depth of approximately 65 to 70

- ft bgs. Underlying this coarse-grained zone is a finer-grained interval described as mudstone or hard brown clay and cemented gravel to a depth of approximately 148 feet bgs. Beneath the finer-grained zone is another coarse-grained interval of gravels and boulders to a depth of approximately 285 to 300 feet bgs. Underlying this interval, the local bedrock consists of volcanic rock or cemented conglomerate to a depth of approximately 305 to 340 feet bgs.
35. Groundwater domestic supply wells near the Facility obtain their water from the Tehama and Tuscan Formations at depths ranging from approximately 100 to 500 feet bgs. Groundwater within these formations generally moves from west to east toward the Sacramento River.
 36. Shallow groundwater beneath the Facility receives seasonal leakage from the ACID canal located west of the Facility. Man-made drainage channels in the northwest portion of the Facility collect ACID water in a small pond and discharge water northward along the east side of Highway 273. ACID water in the ditch along the east side of 273 flows to the south and eventually seeps into the subsurface near the SFP site. Water in the southern portion of the Facility flows directly to Pond 1 through underground piping. When the Facility needs supplemental water, the ACID drainage channel is blocked and water is channeled into the ACID lateral to Ponds 3 and 4.
 37. Shallow groundwater discharges into ponds at three known locations on the Facility: in the western part of the Facility shallow groundwater enters the subsurface drainage system which discharges to Pond 1, and at two culverts along the western bank of the SPI Ditch, one located at the south end which drains a spring fed pond and storm water from neighboring facilities, and the second at the northwest corner of the SPI Ditch.
 38. Six groundwater monitoring wells were installed at the Facility in December 2011, ranging in depth from 14 to 30 feet bgs. Historically, monitoring wells MW-1 through MW-3 located west, or upgradient, of the ponds have been listed as Background Monitoring Wells and monitoring Wells MW-4 through MW-6, located east, or downgradient, of the ponds, have been listed as Compliance Monitoring Wells. The monitoring well network is shown on Attachment B.
 39. Groundwater beneath the Facility varies seasonally in depth from 4 to 14 feet bgs at MW-3 in the northern portion of the Facility and 10 to 20 feet bgs at MW-2 in the central portion of the Facility. Groundwater underlying the Facility generally flows to the east with a gradient of approximately 0.01 feet/foot. Both shallow and regional groundwater flows are generally from west to east toward the Sacramento River.
 40. Although monitoring wells MW-1, -2, and -3 are located upgradient from the ponds, they show inconsistent water quality and therefore background

groundwater quality is not yet well understood. Of the three wells located west of the storage ponds, MW-1 appears to show the best groundwater quality, although pH occasionally drops below the lower limit of 6.5.

41. Compared to MW-1, monitoring wells MW-2 and MW-3 show lower water quality. MW-3 is located downgradient from the LAAs where ash is applied as a soil amendment and alfalfa crops are irrigated with commingled wastewater, storm water, and groundwater. Well MW-2 shows the lowest water quality of all onsite wells. It is at a central location between the Discharger's activities in the western portion of the Facility and the neighboring SFP and SRR properties; SRR ceased operations in August 2014.
42. Water quality data has been collected at the monitoring wells since late 2011. MW-1 appears to show the best groundwater quality. The following table summarizes water quality data collected at MW-1 between 2011 and 2017.

Table 5: Groundwater Quality, MW-1

Constituent	Units	Min.	Max.	Avg.	WQO
pH	S.U.	5.37	7.76	6.4	6.5-8.5 ²
Electrical Conductivity	µmhos/cm	97	168	138	900 ²
Total Dissolved Solids	mg/L	71	157	97	500 ²
Turbidity	NTU	0.5	447	29	1.0 ¹
Color	S.U.	<5	5	2.6	15 ²
Chemical Oxygen Demand	mg/L	<3	5	1.9	--
Chloride	mg/L	2.4	5.6	3.9	250 ²
Nitrate as Nitrogen	mg/L	0.9	5.9	2.5	10 ¹
Sodium	mg/L	6.5	9.7	8.3	20 ³
Sulfate	mg/L	4.0	7.4	5.8	250 ²
Aluminum, Total	µg/L	NM	NM	NM	1,000 ¹
Arsenic, Total	µg/L	<2	5	1.9	10 ¹
Cadmium, Total	µg/L	<0.5	0.5	0.3	5 ¹
Chromium, Total	µg/L	<0.5	9	1.7	50 ¹
Copper, Total	µg/L	<1	8	1.8	1,300 ¹
Iron, Total	µg/L	18	70	35	300 ²
Manganese, Total	µg/L	0.5	116	17.3	50 ²
Mercury, Total	ng/L	<50	<70	ND	50 ⁴
Nickel, Total	µg/L	<1	10	2.0	100 ¹
Selenium, Total	µg/L	<2	<5	ND	50 ¹
Thallium, Total	µg/L	<3	8	2.6	2 ¹

Zinc, Total	µg/L	<2	13	3.6	5,000 ¹
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S.U. = Standard units. NM = Not measured. ND = Not detected.

¹ California Primary Maximum Contaminant Level.

² California Secondary Maximum Contaminant Level.

³ US EPA Health Advisory

⁴ California Toxics Rule Criteria (US EPA) Sources of Drinking Water.

43. Historically, downgradient monitoring wells included MW-4, MW-5, and MW-6. Wells MW-4 and MW-5 are located downgradient from Pond 4 and 3, respectively, and are located approximately 100 feet from the Sacramento River. Note that MW-4 is located within the 100-year floodplain, approximately 10 feet lower in elevation than Pond 4 and the Facility; MW-4 shows water levels and water quality most directly influenced by the Sacramento River.

Groundwater concentrations of Electrical Conductivity (EC), Chloride, Nitrate, Sulfate, Cadmium, Chromium, Copper, Mercury, Nickel, Selenium, and Zinc are below the water quality objectives (WQOs). However, concentrations of pH, Color, Total Dissolved Solids (TDS), Arsenic, Iron, Manganese, and Thallium occasionally do not meet WQOs.

Elevated TDS and metals concentrations may be a sign of groundwater degradation. However, metals concentrations have been historically reported as Total Recoverable concentrations which are not appropriate for comparison to WQOs. Dissolved phase concentrations of metals in groundwater are not available.

Table 6: Groundwater Quality: MW-4, MW-5, and MW-6 (2011-2017 data)

Constituent	Units	Min.	Max.	Avg.	WQO
pH	S.U.	6.4	7.5	6.9	6.5-8.5 ²
Electrical Conductivity	µmhos/cm	124	609	275	900 ²
Total Dissolved Solids	mg/L	83	382	183	500 ²
Chemical Oxygen Demand	mg/L	<3	37	12	--
Color	S.U.	<5	100	23	15 ²
Chloride	mg/L	2.7	15.4	6.4	250 ²
Nitrate as Nitrogen	mg/L	<0.02	1.5	0.5	10 ¹
Sodium	mg/L	7.6	18	12.8	20 ³
Sulfate	mg/L	<0.2	13	3.0	250
Aluminum, Total	µg/L	NT	NT	NT	1,000 ¹
Arsenic, Total	µg/L	<2	27	16.9	10 ¹
Cadmium, Total	µg/L	<0.5	<0.5	<0.5	5 ¹
Chromium, Total	µg/L	<0.5	3	0.7	50 ¹

Copper, Total	µg/L	<1	2	0.8	1,300 ¹
Iron, Total	µg/L	<20	6,590	4880	300 ²
Manganese, Total	µg/L	0.5	4,150	2267	50 ²
Mercury, Total	ng/L	<0.05	<0.07	ND	50 ⁴
Nickel, Total	µg/L	<1	4	1.0	100 ¹
Selenium, Total	µg/L	<2	5	2.2	50 ¹
Thallium, Total	µg/L	<2	7	2.6	2 ¹
Zinc, Total	µg/L	<2	6	1.6	5,000 ¹

S.U. = Standard units. NMT = Not tested. ND = Not detected.

¹ California Primary Maximum Contaminant Level.

² California Secondary Maximum Contaminant Level.

³ US EPA Health Advisory.

⁴ California Toxics Rule Criteria (USEPA) Sources of Drinking Water.

44. The three Production Wells No. 1, 2A, and 4 with terminal depths of 225 feet, 305 feet, and 350 feet bgs, respectively, supply water for Facility operations. Production Well 2A is located immediately south of Pond 2 and Production Well 1 is approximately 1,200 feet southwest of Pond 2. Production Well 4 is located offsite by the Main Office building. Flow from these wells is metered, but historically water use has not been reported.

Basin Plan, Beneficial Uses, and Regulatory Considerations

45. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition, revised July 2016* (hereafter Basin Plan) designates beneficial uses, establishes WQOs, 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 California Water Code section 13263(a), waste discharge requirements must implement the Basin Plan.
46. Local drainage is to the Sacramento River. The beneficial uses of the Sacramento River (Shasta Dam to the Colusa Basin Drain), as stated in the Basin Plan, are municipal and domestic supply (MUN); agricultural irrigation and stock watering (AGR); industrial service supply (IND); hydropower generation (POW); water contact recreation (REC-1); non-contact water recreation (REC-2); warm and cold freshwater habitat (WARM, COLD); wildlife habitat (WILD); migration of aquatic organisms warm and cold (MIGR); warm and cold spawning (SPWN), and navigation (NAV).
47. 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.

48. 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.
49. 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 municipal and domestic supply groundwater.
50. The Basin Plan's narrative WQOs for chemical constituents, at a minimum, require 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.
51. 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.
52. Quantifying a narrative water quality objective requires a Facility-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.
53. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as *Water Quality for Agriculture* by Ayers and Westcot and similar references indicate that yield reductions in nearly all crops are not evident when irrigation water has an EC less than 700 $\mu\text{mhos/cm}$. There is, however, an eight- to ten-fold range in salt tolerance for agricultural crops and the appropriate salinity values to protect agriculture in the Central Valley are considered on a case-by-case basis. It is possible to achieve full yield potential with waters having EC up to 3,000 $\mu\text{mhos/cm}$ if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop.
54. The Central Valley Water Board is developing amendments to the Basin Plan to incorporate new strategies for addressing ongoing salt and nitrate accumulation in the waters and soils of the Central Valley. Strategies currently under consideration may:
 - a. Alter the way the Board calculates available assimilative capacity for nitrate, which could result in new or modified requirements for nitrate management;

- b. Require dischargers to implement actions identified under an interim salinity permitting approach; and/or
- c. Establish alternate compliance approaches that would allow dischargers to participate in efforts to provide drinking water to local communities in consideration for longer compliance time schedules.

Should the Board adopt amendments to the Basin Plan to effectuate such strategies, these waste discharge requirements may be amended or modified to incorporate any newly-applicable requirements.

55. The stakeholder-led Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative has been coordinating efforts to implement new salt and nitrate management strategies. The Board expects dischargers that may be affected by new salt and nitrate management policies to coordinate with the CV-SALTS initiative.

Antidegradation Analysis

56. State Water Resources Control Board Resolution 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State") (hereafter Resolution 68-16) prohibits degradation of groundwater unless it has been shown that:
- a. The degradation is consistent with the maximum benefit to the people of the state.
 - b. The degradation will not unreasonably affect present and anticipated future beneficial uses.
 - c. 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, and
 - d. The discharger employs best practicable treatment or control (BPTC) to minimize degradation.
57. Degradation of groundwater by some of the typical waste constituents associated with discharges from a sawmill and cogen plant, after effective source control, treatment, and control measures are implemented, is consistent with the maximum benefit to the people of the state. The Discharger's operation provides 294 jobs. Power generated at the Facility is a renewable energy source for the community. The economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State, and provides sufficient justification for allowing the limited groundwater degradation that may occur pursuant to this Order.
58. The Discharger has been monitoring groundwater quality at the Facility since 2012. Based on the data available, it is not possible to determine pre-1968

shallow groundwater quality. Therefore, determination of compliance with Resolution 68-16 for this Facility must be based on background groundwater quality.

59. Constituents of concern that have the potential to degrade groundwater include metals (arsenic, chromium, iron, manganese, thallium) and salts (primarily TDS), as discussed below:

Table 7: Antidegradation Summary

	Average Wastewater¹	Background Groundwater²	Downgradient Groundwater³	Potential Water Quality Objective
TDS, mg/L	150	100	183	450 ⁴ to 1,500 ⁷
Arsenic, µg/L	1.6	1.6	16.9	10 ⁵
Chromium, µg/L	1.2	1.1	0.8	50 ⁵
Iron, µg/L	782	102	4,880	300 ⁶
Manganese, µg/L	77	12	2,267	50 ⁶
Mercury, µg/L	0.0028	ND	ND	2 ⁵
Thallium, µg/L	ND	2.3	2.6	2 ⁵

¹ Average concentrations for Ponds 1, 3, and 4: 2012-2017.

² Average concentrations for background well MW-1 data collected from 2011-2017.

³ Average concentrations for compliance wells MW-4, MW-5, and MW-6: 2011-2017.

⁴ Lowest agricultural water quality goal.

⁵ Primary Maximum Contaminant Level.

⁶ Secondary Maximum Contaminant Level.

⁷ Secondary Maximum Contaminant Level range.

ND = Not detected.

60. Current groundwater monitoring data indicate that Facility discharges may have caused (or contributed to) exceedances of WQOs. However, the current assessment is based on Total Recoverable Metals concentrations which are not sufficient to determine compliance with WQOs. This Order requires monitoring of dissolved phase concentrations.
61. This Order establishes that Facility discharges to groundwater will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds WQOs as set forth in the Basin Plan.
62. The Discharger provides treatment and control of the discharge that incorporates storage/percolation ponds followed by seasonal irrigation of alfalfa. Operational best management practices used on the irrigation fields include usage of water application rates that minimize leaching/percolation and incorporation of land application area rest cycles.

Other Regulatory Considerations

63. 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.
64. Based on the threat and complexity of the discharge, the Facility is determined to be classified as 2B 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 WQOs, cause secondary drinking water standards to be violated, or cause a nuisance."
 - b. Category B complexity, defined as: "Any discharger not included [as Category A] that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal) or any Class 2 or Class 3 waste management units."
65. 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 domestic sewage, wastewater, nonhazardous solid wastes, and reuse. 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:

(a) Wastewater - Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or LAAs 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.

(b) Soil Amendments - Use of nonhazardous decomposable waste as a soil amendment pursuant to applicable best management practices, provided that RWQCBs may issue waste discharge or reclamation requirements for such use.

66. Wood Ash. Pursuant to state and federal regulations, wood ash, classified as non-hazardous solid waste, may be beneficially reused as an agricultural soil amendment or other appropriate use. This order does not authorize storage, transportation, or disposal of ash or other wastes characterized as hazardous wastes. Appropriate separate regulatory coverage must be secured for such activities.
67. The discharge authorized herein, and the treatment and storage facilities associated with the discharge, are exempt from the requirements of Title 27. The current unlined wastewater ponds and LAAs are exempt pursuant to Title 27, section 20090(b) because they are discharges of wastewater to land and:
 - a. The Central Valley Water Board is issuing WDRs;
 - b. This Order prescribes requirements that will ensure compliance with the Basin Plan; and
 - c. The wastewater discharged to the LAAs does not need to be managed as hazardous waste.
68. Although the discharge is exempt from Title 27, the statistical data analysis methods of Title 27, section 20415(e) are appropriate for determining whether the discharge complies with Groundwater Limitations specified in this Order.
69. Industrial storm water discharges were previously covered under WDRs Order R5-2011-0090 (NPDES Order CA82066). That Order is being rescinded, therefore the Discharger must apply for coverage under the State Water Board's General Permit for Storm Water Discharges Associated with Industrial Activities, Order NPDES CAS000001.
70. Water Code section 13267(b)(1) 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 having discharged or discharging, or who proposes to discharge waste 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 R5-2018-0029 (MRP) are necessary to ensure compliance with these waste discharge requirements. The Discharger owns and operates the Facility that discharges waste subject to this Order.

71. 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.
72. The action to adopt waste discharge requirements for this existing Facility is exempt from the provisions of the California Environmental Quality Act (CEQA), in accordance with the California Code of Regulations, title 14, section 15301.
73. On 14 June 2012 Shasta County Planning Division certified a Final Environmental Impact Report (EIR) in accordance with the CEQA (Pub. Resources Code, § 21000 et seq.) for SPI's plans to upgrade the cogen power plant. The EIR analyzed impacts associated with expanding cogen operations up to 31 MW per year. On 17 July 2012 Shasta Planning Commission approved Conditional Use Permit 07-021.
74. On 12 November 2015 Shasta County Planning Division approved Use Permit Amendment 07-021A to allow land application of wood ash as a soil amendment on the fields according to the guidelines provided in the Discharger's 2015 Ash Management Plan.
75. On 29 August 2017, Use Permit Minor Modification 07-021A (UPMM) was issued by the Shasta County Planning Commission to include agricultural uses and existing improvements on APN 050-100-015. Existing improvements include agricultural fields, an irrigation system, an agricultural ash stockpile and a retention pond that receives commingled storm water and wastewater discharged from the lumber manufacturing Facility and cogen power plant located on APNs 050-110-023, 050-110-038, and 050-110-039.
76. The UPMM included a determination that use of commingled storm water and wastewater from Pond 4 (Retention Pond) to irrigate agricultural fields on APN 050-100-015 would be regulated under the Central Valley Water Board's WDRs and would not require further CEQA analysis. Compliance with this Order will mitigate or avoid significant impacts to water quality.
77. 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.

78. The California Health and Safety Code (Ca H&S Code) establishes requirements for the management of water ponds necessary for the control of mosquitos and other disease vectors. The Shasta County Mosquito and Vector Control District (District) has jurisdiction and enforcement responsibility pursuant to the Ca H&S Code. The Discharger has entered into a memorandum of understanding with the District for specific mosquito abatement practices that achieve compliance with the Ca H&S Code.

Public Notice

79. 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.
80. 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.
81. All comments pertaining to the discharge were heard and considered in a public hearing.

IT IS HEREBY ORDERED that pursuant to Water Code sections 13263 and 13267, the Discharger, 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 22, section 66261.1 et seq., is prohibited.
3. Discharge of waste classified as 'designated', as defined in CWC Section 13173, in a manner that causes violation of groundwater limitations, is prohibited.
4. Bypass around, or overflow from, the wastewater treatment pond(s) is prohibited, except as allowed by Standard Provision E.2 of the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*.
5. Discharge of wastewater or commingled storm water to any location other than the designated ponds, Facility surfaces requiring dust suppression, or the LAAs described in the Findings is prohibited.

6. Discharge of toxic substances into wastewater ponds or LAAs such that biological treatment mechanisms are disrupted is prohibited.

B. Flow Limitations

1. Effective immediately, cogen power plant discharges to the storage ponds shall not exceed the following limits:

Flow Measurement	Flow Limit
Total Annual Flow ¹	86 MG

¹ As determined by the total cogen discharge for the calendar year.

C. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will cause a 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 ponds and LAAs at all times.
4. 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.
5. The Discharger shall design, construct, operate, and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. The operating freeboard in Ponds 3 and 4 shall never be less than two feet (measured vertically from the lowest possible point of overflow) unless an engineer's evaluation and certification are provided to show a lesser freeboard requirement is sufficient to provide containment. As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.
6. Wastewater storage and disposal ponds shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter 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.

7. On or about **1 October** of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications C.6 and C.7.
8. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes. The Discharger has a memorandum of understanding with Shasta County Mosquito Vector and Control to maintain best management practices to control vector populations.
9. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer if they contain wastewater or commingled wastewater and storm water, or are otherwise legally required to be so designed and constructed.
10. Existing berms in need of emergency repairs are not subject to the certification requirement by a Registered Civil Engineer. Emergency measures are considered to be temporary and may trigger a more detailed evaluation of long-term infrastructure needs and required additional certification.
11. Wastewater contained in any unlined pond shall not have a pH less than 6.0 or greater than 9.0.
12. The Discharger shall monitor sludge accumulation in the wastewater ponds at least every five years beginning in 2018, and shall periodically remove sludge as necessary to maintain adequate storage capacity.
13. Wastewater used for on-site dust control or crop irrigation shall be used in a manner that will not cause discharge of eroded sediment in storm water runoff to areas not controlled by the Discharger.
14. No waste discharge shall occur within the 100-year floodplain, with the exception of areas where documented engineering measures are in place to mitigate for potential flooding conditions. The Discharger has provided a 2011 flood insurance survey which documents that the service road along the Facility's eastern boundary is at least one foot above the 100-year floodplain. See Finding 25.

D. Groundwater Limitations

Release of waste constituents from any portion of the Facility shall not cause groundwater to:

1. Contain constituents in concentrations that exceed either the Primary or Secondary MCLs established in Title 22 of the California Code of Regulations.

2. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

Land Application Area Specifications

1. Crops shall be grown in the LAAs where ash has been applied as a soil amendment.
2. Land application of wastewater shall be managed to minimize erosion.
3. The LAAs shall be managed to prevent breeding of mosquitoes or other vectors.
4. LAAs shall be inspected periodically to determine compliance with the requirements of this Order. If an inspection reveals noncompliance or threat of noncompliance with this Order, the Discharger shall temporarily stop wastewater application immediately and implement corrective actions to ensure compliance with this Order.
5. Spray irrigation with wastewater is prohibited when wind drift offsite occurs.
6. Any irrigation runoff (tailwater) shall be confined to the LAAs or returned to Pond 4 (Retention Pond) and shall not enter any surface water drainage course or storm water drainage system.
7. Discharge of storm water runoff from the LAAs to off-site land or surface water drainage courses is prohibited.
8. All storm water runoff from the LAAs shall be captured and recycled for irrigation or allowed to percolate within the LAAs.

E. Solids Disposal Specifications

Sludge, as used in this document, means the solid, semisolid, and liquid organic matter removed from wastewater treatment, settling, and storage ponds. Solids as used in this document mean non-hazardous wood fly ash and bottom ash waste materials that is a result of the combustion of biomass material and other solid inorganic matter removed by screens and pond sediment removal.

1. Sludge and solid waste shall be removed from screens, sumps, staging areas and ponds as needed to ensure optimal operation and adequate storage capacity.
2. Any handling and storage of sludge and solid waste 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.

3. If removed from the Facility, sludge and solid wastes shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2, and in accordance with an approved Ash Management and Disposal Plan. Removal for reuse as a soil amendment, or land disposal at facilities (i.e., landfills, composting facilities, soil amendment sites operated in accordance with valid WDRs issued by a Regional Water Board) will satisfy this specification.
4. 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.

F. Provisions

1. The following reports shall be submitted pursuant to CWC section 13267 and shall be prepared as described in Provision G.5:

Flow Meters

- a. By **1 September 2018**, the Discharger shall install flow meters as necessary to monitor the amount of source water used for cogen and sawmill activities which generate wastewater. Office water use for the industrial facility does not require separate metering for the purposes of this Order.

Well Installation Work Plan

- b. By **1 September 2018**, the Discharger shall submit a *Groundwater Monitoring Well Installation Work Plan* that proposes at least one additional monitoring well for adequate monitoring upgradient of the LAAs located north of the Facility. If installation of one or more such wells is feasible, the new wells shall be included in the *Well Installation Work Plan*. The plan shall be prepared in accordance with, and include the items listed in the first section of Attachment D: "Requirements for Monitoring Well Installation Work Plans and Groundwater Sampling and Analysis Plan", which is attached hereto and made part of this Order by reference. The groundwater monitoring well(s) shall be designed to yield samples representative of the uppermost portion of the first aquifer.

Well Installation Report

- c. By **3 months** following Central Valley Water Board approval of the Groundwater Monitoring Well Installation Work Plan, the Discharger shall submit a *Groundwater Monitoring Well Installation Report* for any new groundwater monitoring wells constructed to comply with Provision G.1.b. The report shall be prepared in accordance with, and including the items listed in the second section of Attachment D: "Monitoring Well Installation Report," which is attached hereto and made part of this Order by reference. The report shall describe the installation and development of all new monitoring wells, and explain any deviation from the approved work plan.

Background Groundwater Quality Report

- d. By **1 June 2021**, the Discharger shall submit a Background Groundwater Quality Report to summarize groundwater data collected under Monitoring and Reporting Program R5-2018-0029 (MRP) and provide a comprehensive evaluation of background groundwater quality for the Facility. For each groundwater monitoring parameter/constituent identified in the MRP, the report shall present a summary of monitoring data and calculation of the concentration in background monitoring wells. Determination of background water quality shall be made using Facility-specific information and appropriate statistical methods as defined in Finding 63 of this Order. The report shall explain and justify the selection of the appropriate statistical methods and incorporate dissolved metals concentrations and increased cogen discharge rates to the calculations provided in the May 2013 Title 27 Exemption Analysis & Antidegradation Analysis Updates and Groundwater Limitations Update for Expansion of the Cogeneration Plant.
2. A discharger whose wastewater flow (cogen plant discharge), 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 Central Valley Water Board by **31 January**.
3. 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.
4. 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.
5. The Discharger shall comply with MRP R5-2018-0029, 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.

6. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are included in Attachment E and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."
7. 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.
8. 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.
9. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.
10. 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.
11. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."
12. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal systems in amounts that

significantly diminish the system's capability to comply with this Order.
Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.

13. 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.
14. 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.
15. 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 CWC. 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.
16. 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.
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 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 6 April 2018.

Original signed by

PAMELA C. CREEDON, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2018-0029

FOR

SIERRA PACIFIC INDUSTRIES
ANDERSON DIVISION
SHASTA COUNTY

This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code 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.

Section 13267 of the California Water Code states, in part:

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

Section 13268 of the California Water Code states, in part:

“(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or falsifying and information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”

Sierra Pacific Industries (SPI) owns and operates the facility that is subject to the Waste Discharge Requirements (WDRs) cited herein, and the monitoring reports are necessary to determine compliance with the WDRs.

Pursuant to Section 13267 of the California Water Code, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

A glossary of terms used in this MRP is included on the last page.

I. GENERAL MONITORING REQUIREMENTS

A. FLOW MONITORING

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP. Central Valley Water Board staff shall approve any proposed changes to flow monitoring locations prior to implementation of the change. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. Unless otherwise specified, each flow meter shall be equipped with a flow totalizer to allow reporting of cumulative volume as well as instantaneous flow rate. Flow meters shall be calibrated at the frequency recommended by the manufacturer; typically at least once per year and records of calibration shall be maintained for review upon request.

B. MONITORING AND SAMPLING LOCATIONS

Samples shall be obtained at the monitoring points specified in this MRP. Central Valley Water Board staff shall approve any proposed changes to sampling locations prior to implementation of the change.

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

Monitoring Location Name	Monitoring Location Description
Cogen Outfall	Outfall from Cogeneration Plant to Pond 1.
Pond 1	Large Fire Pond, southwest of cogeneration plant.
Pond 3	Log Deck Recycle Pond, east of log deck, north of sawmill and planing facility.
Pond 4	Retention Pond, north of Log Deck and east of agricultural fields.
MW-1, MW-2, MW-3, MW-4, MW-5, MW-6	Groundwater monitoring well locations.
PW-1	Supply well on west side of processing area.
PW-2A	Supply well immediately west of the Small Fire Pond and north of the cogen plant.

C. SAMPLING AND SAMPLE ANALYSIS

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. Except as specified otherwise in this MRP, grab samples will be considered representative of water, wastewater, ash solids, and groundwater.

The time, date, and location of each sample shall be recorded on the sample chain of custody form. All analyses shall be performed in accordance with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991 (Standard Provisions).

Field test instruments (such as those used to measure pH, electrical conductivity, dissolved oxygen, wind speed, and precipitation) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated at the frequency recommended by the manufacturer;
3. The instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

Laboratory analytical procedures shall comply with the methods and holding times specified in the following (as applicable to the medium to be analyzed):

- *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 (ELAP). The Discharger may propose alternative methods for approval. Where technically feasible, laboratory reporting limits shall be lower than the applicable water quality objectives for the constituents to be analyzed.

If monitoring consistently shows no significant variation in a constituent concentration or parameter after at least 24 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.

II. SPECIFIC MONITORING REQUIREMENTS

A. COGEN OUTFALL MONITORING

Cogeneration (Cogen) outfall samples shall be collected upstream of the point of discharge (referred to in WDRs Order R5-2011-0090 as Cogen Discharge INT-001) to Pond 1. At a minimum, cogen outfall shall be monitored as specified below:

Constituent/Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Flow ¹	gpd	Meter Reading	Monthly	Monthly
Temperature	°C, °F	Grab	Monthly	Monthly
Turbidity	mg/L	Grab	Monthly	Monthly
pH	mg/L	Grab	Monthly	Monthly
Electrical Conductivity	µmhos/cm	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Chemical Oxygen Demand	mg/L	Grab	Quarterly	Quarterly
Oil and Grease	mg/L	Grab	Quarterly	Quarterly
General Minerals ²	mg/L	Grab	Quarterly	Quarterly
Metals, Dissolved ³	µg/L	Grab	Quarterly	Quarterly
Priority Pollutants ⁴	µg/L	Grab	Biannually	Biannually

¹ For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer is not in operation.

² General minerals shall include, at a minimum, the following elements/compounds: boron, calcium, chloride, iron, magnesium, manganese, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness.

³ Samples for metals shall be filtered prior to preservation and digestion using a 0.45-micron filter. Priority pollutant metals shall include, at a minimum, the following: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium (Total and Hexavalent), Cobalt, Copper, Lead, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, Zinc and Mercury.

⁴ Priority Pollutants as presented in Table 1. Additional reference: Appendix A to U.S. EPA Code of Federal Regulations, title 40, Part 423, <https://www.epa.gov/sites/production/files/2015-09/documents/priority-pollutant-list-epa.pdf>. Note that asbestos is not required.

POND MONITORING

Pond 1 (Large Fire Pond), Pond 3 (Log Deck Recycle Pond), and Pond 4 (Retention Pond) are used for storage and disposal of wastewater and shall be monitored as specified below. Grab samples shall be collected opposite the pond inlet.

Constituent/Parameter	Units	Sample Type	Monitoring Frequency ⁸	Reporting Frequency
Freeboard ¹	0.1 feet	Measurement	Quarterly	Quarterly
Odors	--	Observation	Quarterly	Quarterly
Berm condition	--	Observation	Quarterly	Quarterly
Dissolved Oxygen ²	mg/L	Grab	Quarterly	Quarterly
pH	S.U.	Grab	Quarterly	Quarterly
Eh	millivolts	Grab	Quarterly	Quarterly
Temperature	°C, °F	Grab	Quarterly	Quarterly
Electrical Conductivity	µmhos/cm	Grab	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Total Organic Carbon	mg/L	Grab	Quarterly	Quarterly
Chemical Oxygen Demand	mg/L	Grab	Quarterly	Quarterly
Color	S.U.	Grab	Quarterly	Quarterly
Tannins & Lignins	mg/L	Grab	Quarterly	Quarterly
Oil & Grease	mg/L	Grab	Quarterly	Quarterly
Aluminum ³	µg/L	Grab	Quarterly	Quarterly
General Minerals ⁴	mg/L	Grab	Quarterly	Quarterly
Metals, Total Recoverable ⁵	µg/L	Grab	Quarterly ⁵	Quarterly ⁵
Metals, Dissolved ⁶	µg/L	Grab	Quarterly	Quarterly
Priority Pollutants ⁷	µg/L	Grab	Ann/Biann ⁹	Annually

¹ Freeboard in Ponds 3 and 4 shall be measured vertically from the surface of the pond water to the lowest elevation of the surrounding berm and shall be measured to the nearest 0.1 feet.

² Samples shall be collected opposite the pond inlet at a depth of one foot.

³ Total Recoverable Aluminum shall not be duplicated when running Total Recoverable Metals during first year quarterly sampling events.

⁴ General minerals shall include, at a minimum, the following elements/compounds: Total Alkalinity (including alkalinity series), Boron, Calcium, Chloride, Hardness, Iron, Magnesium, Manganese, Nitrate-Nitrogen, Potassium, Sodium, and Sulfate.

⁵ Samples for total recoverable metals shall be run quarterly for first year only for geochemical analysis per Thorbjornsen and Myers, 2007. Metals shall include, at a minimum, the following: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium (Total and Hexavalent), Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

⁶ Samples for dissolved metals shall be filtered prior to preservation and digestion using a 0.45-micron filter. Metals shall include, at a minimum, the following: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium,

Chromium (Total and Hexavalent), Cobalt, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

- 7 Priority Pollutants as presented in Table 1. Additional reference: Appendix A to U.S. EPA Code of Federal Regulations, title 40, Part 423, except 2,3,7,8-TCDD. <https://www.epa.gov/sites/production/files/2015-09/documents/priority-pollutant-list-epa.pdf> . Note that asbestos is not required.
- 8 Upon Executive Officer approval, sampling frequency may be reduced after two consecutive years of data has been submitted.
- 9 Annual monitoring for Pond 1; biannual monitoring for Ponds 3 and 4.

In addition, the Discharger shall inspect the condition of the ponds monthly and document visual observations. Notations shall include observations of:

- a. Presence of weeds in the water or along the berm;
- b. Accumulations of dead algae, vegetation, scum, or debris on the pond surface;
- c. Animal burrows in the berms;
- d. Evidence of seepage from the berms or downslope of the ponds

B. LAND APPLICATION AREA MONITORING

Pre-Application Inspections

The Discharger shall inspect the LAAs once prior to irrigation events, and once at the conclusion of irrigation events, and observations from those inspections shall be documented for inclusion in the quarterly monitoring reports. The following items shall be documented for each major field area to be irrigated during the event:

- a. Evidence of erosion;
- b. Containment berm condition;
- c. Condition of above-ground pipes, flow control valves, sprinklers, and/or drip emitters (as applicable);
- d. Soil saturation;
- e. Ponding;
- f. Irrigation supply and potential for runoff to off-site areas;
- g. Potential and actual discharge of irrigation water (commingled wastewater and storm water) to surface water;
- h. Odors that have the potential to be objectionable at or beyond the property boundary; and
- i. Insects (e.g. flies, mosquitoes).
- j. Any corrective actions taken based on observations made.

A copy of entries made in the log during each month shall be submitted as part of the Quarterly Monitoring Report. If no irrigation with wastewater takes place during a given month, then the monitoring report shall so state.

Land Application Monitoring

The Discharger shall perform the following routine monitoring for each major field area or LAA each event when water is applied. If irrigation is supplemented with water from the Anderson Cottonwood Irrigation District (ACID) Canal, the report shall include estimated volumes.

Constituent/Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency
Precipitation	inches	Rain Gauge Reading ¹	Daily	Quarterly
Acreage Applied	acres	Report Fields	event	Quarterly
Water Application Rate	gallons	Run-Time Reading & Calculation	event	Quarterly
Supplemental Water to Ponds 3 & 4	gallons	Calculation	Event	Quarterly

¹ Data obtained from the nearest National Weather Service rain gauge is acceptable.

C. GROUNDWATER MONITORING

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

Applicability of Groundwater Limitations

Prior to construction and/or sampling of any groundwater monitoring wells, the Discharger shall submit plans and specifications for approval. Once installed, all new wells shall be added to the groundwater monitoring network. The following table lists all existing monitoring wells:

MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
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Groundwater Sampling and Analysis

Prior to purging or sampling, the groundwater depth shall be measured in each well to the nearest 0.01 feet. Groundwater elevations shall then be calculated to determine groundwater gradient and flow direction.

Low or no-purge sampling methods are acceptable, if described in an approved Sampling and Analysis Plan. Otherwise, each monitoring well shall be purged of at least 3 to 5 casing volumes until pH, electrical conductivity and turbidity have stabilized prior to sampling. Groundwater monitoring for all monitoring wells shall include, at a minimum, the following:

Constituent/Parameter	Units	Sample Type	Monitoring Frequency ⁷	Reporting Frequency
Depth to Groundwater ¹	0.01 feet	Measurement	Quarterly	Quarterly
Groundwater Elevation ¹	0.01 feet	Calculation	Quarterly	Quarterly
Gradient ¹	feet/feet	Calculation	Quarterly	Quarterly
Gradient Direction ¹	degrees	Calculation	Quarterly	Quarterly
pH	S.U.	Grab	Quarterly	Quarterly
Electrical Conductivity	µmhos/cm	Grab	Quarterly	Quarterly
Temperature	°C, °F	Grab	Quarterly	Quarterly
Turbidity	NTU	Grab	Quarterly	Quarterly
Eh	millivolts	Grab	Quarterly	Quarterly
Dissolved Oxygen	mg/L	Grab	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Total Organic Carbon	mg/L	Grab	Quarterly	Quarterly
Color	mg/L	Grab	Quarterly	Quarterly
Tannins & Lignins	mg/L	Grab	Quarterly	Quarterly
Aluminum, Total ²	µg/L	Grab	Quarterly	Quarterly
Iron, Total ²	µg/L	Grab	Quarterly	Quarterly
Manganese, Total ²	µg/L	Grab	Quarterly	Quarterly
General Minerals ³	mg/L	Grab	Quarterly	Quarterly
Metals, Total Recoverable ⁴	µg/L	Grab	Quarterly	Quarterly
Metals, Dissolved ⁵	µg/L	Grab	Quarterly	Quarterly
Priority Pollutants ⁶	µg/L	Grab	Annually	Annually

¹ Groundwater elevations shall be determined based on depth-to-water measurements using a surveyed elevation reference point on the well casing.

² Total Recoverable Aluminum, Iron and Manganese shall not be duplicated when running Total Recoverable Metals during first year quarterly events.

³ General minerals shall include, at a minimum, the following elements/compounds: Total Alkalinity (including Alkalinity series), Boron, Calcium, Chloride, Hardness, Iron, Magnesium, Manganese, Nitrate-Nitrogen, Potassium, Sodium, and Sulfate.

⁴ Samples for total recoverable metals shall be run quarterly for first year only for geochemical analysis per Thorbjornsen and Myers, 2007. Metals shall include, at a minimum, the following: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium (Total and Hexavalent), Cobalt, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

⁵ Samples for metals shall be filtered prior to preservation and digestion using a 0.45-micron filter. Metals shall include, at a minimum, the following: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium (Total and Hexavalent), Cobalt, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

- ⁶ Priority Pollutants as presented in Table 1. Additional reference: Appendix A to U.S. EPA Code of Federal Regulations, title 40, Part 423, except 2,3,7,8-TCDD. <https://www.epa.gov/sites/production/files/2015-09/documents/priority-pollutant-list-epa.pdf>. Note that asbestos is not required.
- ⁷ Upon Executive Officer approval, sampling frequency may be reduced after two consecutive years of data has been submitted.

D. WATER SUPPLY MONITORING

A representative sample of the water supply shall be obtained from each water source (Production Wells PW-1 and PW-2A) for the first round of sampling. Future water supply monitoring may be performed for the primary supply well only. Water supply monitoring shall include at least the following.

Constituent/Parameter	Units	Sample Type	Monitoring Frequency	Reporting Frequency ³
Flow	gpd	Continuous	Monthly	Annually
pH	S.U.	Grab	Annually	Annually
Eh	millivolts	Grab	Annually	Annually
Electrical Conductivity	µmhos/cm	Grab	Annually	Annually
Total Dissolved Solids	mg/L	Grab	Annually	Annually
General Minerals ¹	mg/L	Grab	Annually	Annually
Metals, Dissolved ²	µg/L	Grab	Annually	Annually

¹ General Minerals shall include, at a minimum, the following: Total Alkalinity (including alkalinity series), Boron, Calcium, Chloride, Hardness, Iron, Magnesium, Manganese, Nitrate-Nitrogen, Potassium, Sodium, and Sulfate.

² Samples for metals shall be filtered prior to preservation and digestion using a 0.45-micron filter. Metals shall include, at a minimum, the following: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium (Total and Hexavalent), Cobalt, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

III. OTHER MONITORING REQUIREMENTS

A. Ash Solids Monitoring

- The Discharger shall report the information listed below regarding cogen ash in the quarterly monitoring reports. A representative composite sample of the ash shall be tested quarterly for total and dissolved constituents. Composite sampling shall be performed in accordance with the 2015 Ash Management Plan. Dissolved constituents shall be obtained using the Waste Extraction Test (WET) described in the CCR, Title 22, Division 4.5, Chapter 11, Article 3. The extract shall be analyzed for the metals listed below. All analytical results shall be summarized annually and submitted with the Fourth Quarter report.

Parameter	Units	Sample Type	Minimum Sampling Frequency ¹	Required Analytical Test Method
Ash Volume Generated	Green-tons ²	Continuous	Monthly	--
Ash Volume Land-Applied at Facility	Dry-tons ²	Continuous	Monthly	--
Ash Volume Removed from Facility	Dry-tons ²	Continuous	Monthly	--
Ash Liming Capacity	Equiv % CaCO ₃	Composite	2/Year	UC Davis Method 440 or AOAC 955.01 ³
Ash Total Phosphorous	mg/kg	Composite	2/Year	4
Moisture Content	% Moisture	Composite	2/Year	4
pH	S.U.	Composite	2/Year	4
Priority Pollutant Metals ⁶	mg/kg	Composite	2/Year	4, 7
TCDD-Equivalents ⁸	pg/g	Composite	1/Year	EPA Method 1613

¹ Upon Executive Officer approval, sampling frequency may be reduced after two consecutive years of data has been submitted.

² Units may be reported in volume or weight measurement.

³ A&L Western Agricultural Laboratories' Neutralizing value of liming materials (or percent calcium carbonate equivalency – CCE).

⁴ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

⁵ General Minerals shall include, at a minimum, the following: Total Alkalinity (including alkalinity series), Boron, Calcium, Chloride, Hardness, Magnesium, Nitrate-Nitrogen, Potassium, Sodium, and Sulfate.

⁶ Priority Pollutant Metals shall include: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium (Total and Hexavalent), Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Vanadium, and Zinc.

⁷ In accordance with CCR Title 22 testing procedures.

⁸ Dioxin equivalents, also known as the TEQ, is a calculated value that reflects the combined effect of dioxin and furan compounds (congeners). Results for dioxin TEQ shall include all congeners.

2. The Discharger shall record on a monthly basis the following information about wood ash removed from the Facility and submit in the Fourth Quarter Monitoring Report **no later than 1 February of each year**. The Fourth Quarter Monitoring Report shall include the following:
 - a. final end user name, address, and disposal location or soil amendment application area (except as described in item c. below for intermediate producers), and

- b. volume and/or weight of ash for each location/area (except as described in item c. below for intermediate producers).
- c. the name, address, and volume and/or weight of ash sold or supplied to an intermediate producer for use in the manufacture of commercial soil amendment products. (Note: Final application area information for end users purchasing commercial soil amendment products is not required.)
- d. a statement signed by the Discharger that the most recent available laboratory and applications data have been reviewed and that use as a soil amendment is considered a beneficial use.

IV. REPORTING REQUIREMENTS

All monitoring reports should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: centralvalleyredding@waterboards.ca.gov.

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the following address:

Central Valley Regional Water Quality Control Board
ECM Mailroom
364 Knollcrest Drive, Suite 205
Redding, California 96002

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or transmittal sheet:

Attention: Compliance/Enforcement Section
Sierra Pacific Industries – Anderson Division
Shasta County
WDID: 5A45NC00038

A transmittal letter shall accompany each monitoring report. The letter shall include a discussion of all violations of the WDRs and this MRP during the reporting period and actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions taken and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. Pursuant to Section B.3 of the Standard Provisions and General Reporting Requirements, the transmittal letter shall contain a statement by the Discharger or the Discharger's authorized agent certifying under penalty of perjury that the report is true, accurate and complete to the best of the signer's knowledge.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, pond, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable.

The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

Laboratory analysis reports should be included in the monitoring reports; all laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3. For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

In addition to the requirements of 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.

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 Water Board or Central Valley Regional Water Board may require electronic submittal of 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 similar system. Electronic submittal to CIWQS, when implemented, will meet the requirements of our Paperless Office System.

A. Quarterly Monitoring Reports

Quarterly monitoring reports shall be submitted to the Board by the **1st day of the second month after the quarter** (i.e. the January-March quarterly report is due by **May 1st**). Each Quarterly Monitoring Report shall include the following:

1. Results of Cogen Outfall Monitoring, including calculated values for total flow and average daily flow for each month, and total annual flow to date.
2. Results of Pond Monitoring including:
 - a. Monthly field measurements, visual observations, and activity logs.
 - b. Monthly and quarterly analytical results.
 - c. Summary data tables of historical and current water table elevations and analytical results. Electronic files should be available upon Central Valley Water Board request.
3. Results of Land Application Area Monitoring, including:
 - a. Monthly quantities of ash production, quantities (in green tons) of ash application to each LAA, start and end of irrigation activities, precipitation, and visual inspections for runoff or signs of saturation and/or erosion.

- b. Logs showing ash application, irrigation activities, precipitation, and visual inspections for runoff or signs of saturation and/or erosion.
4. Results of Groundwater Monitoring, including:
 - a. A narrative description of all preparatory, monitoring, sampling, and sample handling for groundwater monitoring.
 - b. A field log for each well documenting depth to groundwater; method of purging; parameters measured before, during, and after purging; sample preparation (e.g., filtering); and sample preservation.
 - c. Calculation of the groundwater elevation at each monitoring well, and determination of groundwater flow direction and gradient on the date of measurement.
 - d. Summary data tables of historical and current water table elevations and analytical results. Electronic files should be available upon Central Valley Water Board request.
 - e. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells, surface waters, and groundwater elevation contours referenced to an appropriate datum (e.g., NGVD).
5. Results of Ash Waste Monitoring completed during the quarter, including the monthly volumes of ash generated, applied, and removed from the facility and applicable results of any laboratory analysis conducted.
6. Results of Water Supply Monitoring, if performed during the quarter, with summary table of historical data.
7. A comparison of monitoring data to the effluent limitations and discharge specifications and an explanation of any violation of those requirements.
8. A copy of inspection log page(s) documenting inspections completed during the quarter.
9. A copy of calibration log page(s) verifying calibration of all hand-held monitoring instruments performed during the quarter.

The Fourth Quarter Monitoring Report will serve as an Annual Report. The Fourth Quarter Monitoring Report shall be submitted by **1 February of each year**, and shall include the following in addition to the items listed above:

Cogen Discharge Monitoring

1. Cogen discharge flow v. time graphs using all historic flow monitoring data.
2. Concentration v. time graphs for each monitored constituent using all historic effluent monitoring data.

Pond Monitoring

1. Concentration v. time graphs for each monitored constituent using all historic effluent monitoring data.

Land Application Area Monitoring

1. Summary of monthly ash quantities generated, calculations of bone dry tons applied to each LAA, logs for ash sold to third parties and offsite disposal.

Groundwater Monitoring

1. Concentration v. time graphs for each monitored constituent using all historic groundwater monitoring data. Each graph shall show the water quality objective for the constituent.
2. An evaluation of the groundwater quality beneath the site and determination of whether any water quality objectives were exceeded in any compliance well at any time during the calendar year. This shall be determined by comparing the annual average concentration for each well during the calendar year to the corresponding water quality objective specified previously. If any groundwater water quality objectives were exceeded, include acknowledgment that a technical report will be submitted in accordance with the specified reporting schedule, as described in the Groundwater section of this MRP.

Water Supply Monitoring

1. Concentration v. time graphs for annual water supply monitoring constituents.

Ash Solids Monitoring

1. A summary of all Ash Solids Monitoring completed during the year, including the volume of ash generated, stored, and removed from the facility and all applicable results of laboratory analysis conducted.

Other Standard Information

1. An evaluation of the performance of the Facility's process and storm water storage and disposal system, including discussion of capacity issues, nuisance conditions, and a forecast of cogen outfall flows anticipated in the next year, as described in Standard Provision G.2.
2. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.
3. Monitoring equipment maintenance and calibration records, as described in Standard Provision G.6.
4. A discussion of any data gaps and potential deficiencies or redundancies in the monitoring system or reporting program.

A letter transmitting the self-monitoring reports shall accompany each report. The letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the

Discharger, or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements Section B.3.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: Original signed by
PAMELA C. CREEDON, Executive Officer
6 April 2018
(Date)

GLOSSARY

COD	Chemical oxygen demand
CaCO ₃	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
NTU	Nephelometric turbidity unit
TDS	Total dissolved solids
TOC	Total organic carbon
Continuous	The specified parameter shall be measured by a meter continuously
Daily	Average daily, calculated from monthly readings
Monthly	Once per calendar month
Quarterly	Once per calendar quarter
Annually	Once per year
Biannually	Once every 2 years
mg/L	Milligrams per liter
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day

REFERENCES

Thorbjornsen, Karen and Jonathan Myers. *Identifying Metals Contamination in Groundwater Using Geochemical Correlation Evaluation*, Environmental Forensics, 2007, 8:25-35, Copyright, Taylor & Francis Group, LLC.

Table 1
Priority Pollutants

<u>Inorganics</u> ¹	<u>Organics</u>	3-Methyl-4-Chlorophenol	Hexachlorobenzene
Antimony	Acrolein	Pentachlorophenol	Hexachlorobutadiene
Arsenic	Acrylonitrile	Phenol	Hexachlorocyclopentadiene
Beryllium	Benzene	2,4,6-Trichlorophenol	Hexachloroethane
Cadmium	Bromoform	Acenaphthene	Indeno(1,2,3-c,d)pyrene
Chromium (III)	Carbon tetrachloride	Acenaphthylene	Isophorone
Chromium (VI)	Chlorobenzene	Anthracene	Naphthalene
Copper	Chlorodibromomethane	Benzidine	Nitrobenzene
Lead	Chloroethane	Benzo(a)Anthracene	N-Nitrosodimethylamine
Mercury	2-Chloroethylvinyl Ether	Benzo(a)pyrene	N-Nitrosodi-n-Propylamine
Nickel	Chloroform	Benzo(b)fluoranthene	N-Nitrosodiphenylamine
Selenium	Dichlorobromomethane	Benzo(g,h,i)perylene	Phenanthrene
Silver	1,1-Dichloroethane	Benzo(k)fluoranthene	Pyrene
Thallium	1,2-Dichloroethane	Bis(2-chloroethoxy) methane	1,2,4-Trichlorobenzene
Zinc	1,1-Dichloroethylene	Bis(2-chloroethyl) ether	
Cyanide	1,2-Dichloropropane	Bis(2-chloroisopropyl) ether	
Asbestos, not required under this Order	1,3-Dichloropropylene	Bis(2-Ethylhexyl)phthalate	<u>Pesticides</u>
	Ethylbenzene	4-Bromophenyl phenyl ether	Aldrin
	Methyl Bromide	Butylbenzyl Phthalate	alpha-BHC
	Methyl Chloride	2-Chloronaphthalene	beta-BHC
<u>Dioxin Congeners</u>	Methylene Chloride	4-Chlorophenyl Phenyl Ether	gamma-BHC (Lindane)
2,3,7,8-TCDD	1,1,2,2-Tetrachloroethane	Chrysene	delta-BHC
1,2,3,7,8-PentaCDD	Tetrachloroethylene (PCE)	Dibenzo(a,h)Anthracene	Chlordane
1,2,3,4,7,8-HexaCDD	Toluene	1,2-Dichlorobenzene	4,4'-DDT
1,2,3,6,7,8-HexaCDD	1,2-Trans-Dichloroethylene	1,3-Dichlorobenzene	4,4'-DDE
1,2,3,7,8,9-HexaCDD	1,1,1-Trichloroethane	1,4-Dichlorobenzene	4,4'-DDD
1,2,3,4,6,7,8-HeptaCDD	1,1,2-Trichloroethane	3,3'-Dichlorobenzidine	Dieldrin
OctaCDD	Trichloroethylene (TCE)	Diethyl phthalate	alpha-Endosulfan
1,2,3,7,8-PentaCDF	Vinyl chloride	Dimethyl phthalate	beta-Endosulfan
2,3,4,7,8-PentaCDF	2-Chlorophenol	Di-n-Butyl Phthalate	Endosulfan Sulfate
1,2,3,4,7,8-HexaCDF	2,4-Dichlorophenol	2,4-Dinitrotoluene	Endrin
1,2,3,6,7,8-HexaCDF	2,4-Dimethylphenol	2,6-Dinitrotoluene	Endrin Aldehyde
1,2,3,7,8,9-HexaCDF	2-Methyl-4,6-Dinitrophenol	Di-n-Octyl Phthalate	Heptachlor
2,3,4,6,7,8-HexaCDF	2,4-Dinitrophenol	1,2-Diphenylhydrazine	Heptachlor epoxide
1,2,3,4,6,7,8-HeptaCDF	2-Nitrophenol	Fluoranthene	Polychlorinated biphenyls
1,2,3,4,7,8,9-HeptaCDF	4-Nitrophenol	Fluorene	Toxaphene
OctaCDF			

¹ With the exception of wastewater samples, samples for metals analysis must first be filtered. If filtering in the field is not feasible, samples shall be collected in unpreserved containers and submitted to the laboratory within 24 hours with a request (on the chain of custody form) to immediately filter then preserve the sample.

² Samples to be analyzed for volatile compounds and phthalate esters shall be grab samples; the remainder shall be 24-hour composite samples.

INFORMATION SHEET

ORDER R5-2018-0029
SIERRA PACIFIC INDUSTRIES
ANDERSON DIVISION
SHASTA COUNTY

Background

Sierra Pacific Industries (hereafter Discharger) owns and operates a 160-million board foot sawmill and cogeneration facility (Facility) located in Anderson, Shasta County. The Facility was previously regulated for discharges to the Sacramento River through the National Pollution Discharge Elimination System program under Waste Discharge Requirements Order R5-2011-0090 (NPDES No. CA0082066). The Discharger submitted a Report of Waste Discharge on 16 June 2016 for regulation of discharges to land and has not discharged to surface water since 2009.

The Facility employs approximately 294 workers to process Douglas fir and pine to dimensioned lumber and produce untreated power poles using electrical power and steam provided by a newly expanded 31-megawatt (MW) cogeneration (cogen) plant. The Facility consists of a sawmill, planer mill, drying kilns, wood-fired cogen boiler for generation of electric power and steam for kiln heating, paved log unloading and scaling yard, rough-cut lumber storage area, bark processing and storage area, chip loading area, log deck, pole log deck, fabrication shop, truck shop, paved finished lumber storage areas, and separate pole handling facilities which include a scaling yard and log deck. The new cogen plant went online in July 2015 and SPI hopes to expand production to 180-million board feet annually. A Facility map is shown on Attachment B.

Source Water

Two onsite groundwater supply wells, Production Wells No. 1 and 2a, completed at 225 and 305 feet below ground surface (bgs) respectively, provide water to the Facility for industrial use and as potable water. There is one offsite groundwater supply well, Production Well No. 4, which is completed at 350 feet bgs. Production Well No. 4 is located at the Main Office, located on an adjacent parcel south of the Facility and produces water primarily for cooling the Main Office air-conditioner. The effluent from the air conditioner system at the Main Office is beneficially reused at the Anderson Sawmill to reduce impacts on the regional groundwater. Air conditioner water passes through a heat-exchanger and flows aboveground to a pipe that discharges to a storm water pump station at the southeast corner of the sawmill, which pumps water to Pond 3. In addition to the cooling water, a 2.5-inch line conveys groundwater from Production Well No. 4 to the sawmill for industrial use and potable water. The groundwater from Production Well No. 4 that is pumped to the sawmill is included in WDRs coverage. All three production wells are regulated by Shasta County Department of Environmental Health (SCDEH) for potable use.

The Discharger also has a riparian water right for Sacramento River water and a lateral from the Anderson Cottonwood Irrigation District (ACID) Canal which flows south and east along the northern perimeter of the processing facility.

A network of four storage/percolation ponds is used for storage of log-deck sprinkling water and for collection and final disposal of wastewater and storm water. Domestic wastewater

produced at the Facility and at the Main Office is routed to five offsite septic tank leach field systems and regulated by SCDEH.

Cogeneration Operations

The Discharger operates a 31-MW cogen plant for generation of electrical power and steam for kiln heating. Wood byproducts from the sawmill portion of the Facility are used as a source fuel for the cogen plant.

Cogen operations utilize additives to prevent scaling and facilitate boiler operation. These chemicals include sodium hydroxide, a water soluble polymer, cyclohexyl amine, morpholine, and sodium hypochlorite. A complete list of chemicals used in the cogen operations is updated annually on the California Environmental Reporting System (CERS) as part of the SCDEH records. Cogen discharges also include reject water from reverse osmosis treatment. Average daily cogen discharged to Pond 1 in 2016 was approximately 110,000 gallons per day (gpd), with a peak average daily flow of 179,000 gpd recorded in August 2016.

The cogen facility produces wood fly and bottom ash at an estimated rate of 8,065 green tons per year. Wood fly and bottom ash are quenched with groundwater and discharged directly into dump trucks for direct delivery to the agricultural fields. In wet weather conditions, ash is temporarily stockpiled in a staging area located directly north of Pond 4. The ash is subsequently spread and tilled into 130 acres of agricultural fields according to procedures established in the Facility's June 2015 Ash Management Plan.

Composite samples of the ash material are analyzed semiannually to verify that it is non-hazardous waste. Application volumes and areas are reported with the laboratory data. Land application areas (LAAs) are divided into five areas known as Fields A through E, shown in Attachment B. The June 2015 Ash Management Plan determined application rates suitable for alfalfa growth.

The 130-acre parcel at the north end of the Facility is farmed with alfalfa and irrigated with water from Pond 4. When additional water is needed for irrigation, a valve is opened to draw water into Pond 4 from an ACID canal lateral that runs along the western and southern edge of the agricultural fields. Historically the Discharger has not measured supplemental water use.

Irrigation is performed over a six-month period during the dry season. Historically annual irrigation volumes are estimated to have an application depth of 7, to 8 inches, which is approximately the same as the textbook evapotranspiration (ET) rate for alfalfa. In 2016 approximately 23.3 million gallons (MG) of water were applied to 130-acres of alfalfa over a 4-month period.

Sawmill Operations

Sawmill operations consists of a 160-million board-foot sawmill, planer mill, drying kilns, wood-fired cogen boiler for generation of electric power and steam for kiln heating, paved log unloading and scaling yard, rough-cut lumber storage area, bark processing and storage area, chip loading area, log deck, fabrication shop, truck shop, paved finished lumber storage areas, warehouse, agricultural fields, storage ponds, and separate pole handling facilities which include a scaling yard, and log deck.

Chemicals used in the planer building include a mixture containing a “wood preservative,” “lumber brightener,” and a Kop Coat mildew control agent. A lumber end sealer is also used as needed. The materials are proprietary formulations and do not contain arsenic, pentachlorophenol, or other persistent chlorinated materials. The chemicals used in the planer system are applied in a closed loop spray system. Any excess material is collected in a catch basin and recycled. Safety Data Sheets (SDS) for all materials are held by the Discharger.

Ponds

All ponds are unlined and allow discharge to groundwater. Ponds 3 and 4 are 12 feet deep and Ponds 1 and 2 are 8 feet deep. Seasonally groundwater rises and mixes with water in Ponds 3 and 4.

Pond 1 does not receive groundwater directly, however, if Pond 1 is low, Pond 2 can flow back to Pond 1. Water is drawn from Pond 1 for secondary fire protection. The following facility operations discharge to Pond 1; Cogen plant discharges including cooling tower blowdown, boiler blowdown, ash-quench water, boiler feed water reverse osmosis (RO) system back flush. In addition, storm water from the vicinity of the west side of the facility is captured in Pond 1.

No active wastewater treatment is performed in this area. The cogen plant discharges to Pond 1 (Large Fire Pond), which also receives additional waste streams including runoff from the pole-log deck from log sprinkling and storm water as well as minimal quantities of ash-quench water. Pond 1 water flows by gravity to Pond 2 (Small Fire Pond), then to the S.P. Ditch, where water can be directed to Pond 4 (Retention Pond) and/or Pond 3 (Log Deck Recycle Pond).

Pond 2 can receive groundwater from Production Wells 1 and 2A. Water is drawn from Pond 2 for the primary fire protection. No facility operations discharge to Pond 2. Some storm water from the vicinity of the Pole Yard and Cogen Fuel Pile is captured in Pond 2. If Pond 2 is full, water can be released from Pond 2 to the S.P. Ditch.

The SPI Ditch receives water from Pond 2, and recycled water from log-deck sprinkling and storm water runoff from the immediate surrounding area. Also shallow groundwater drainage from two adjacent facilities located west and northwest of the Facility flows into the SPI Ditch. Note that shallow groundwater in the area is recharged in the dry season from the Anderson-Cottonwood Irrigation District (ACID) canal which flows from north to south on the west side of

Highway 273 west of the Facility. Water is not drawn from the SPI Ditch. In addition, storm water from the vicinity of the log yard is captured in the SPI Ditch. SPI releases water from the SPI Ditch to Pond 4 (Retention Pond) as needed via a subsurface 24-inch steel culvert. The SPI Ditch also releases water through a 12-inch culvert to Pond 3 (Log Deck Recycle Pond).

Pond 3 receives storm water from the vicinity of the planer mill, stacker, cooling shed, and drying kilns, which collects in a storm water pump station at the southeast corner of the Facility. Air conditioner water from the Main Office is also pumped into an above-ground pipe located at the southeast corner of the Planer which Gravity flows by way of a small channel to Pond 3 (Log Deck Recycle Pond). Pond 3 also receives wastewater and storm water from the dry kilns through a subsurface culvert which discharges to a small channel that gravity flows to Pond 3. Water from Pond 3 is used to sprinkle logs in the log deck and return water is routed back to Pond 3. Process and storm water in Pond 3 can be pumped to Pond 4 as needed.

Pond 4 does not receive groundwater from any production well. Water is drawn from Pond 4 for irrigation and storm water management. Water from Pond 3 can be pumped to Pond 4. In addition, storm water from the vicinity of the Facility is captured ultimately in Pond 4. Seasonally, Pond 4 water is used to irrigate approx. 130 acres of agricultural fields located directly north of the Facility and west of Pond 4. See Attachment B.

Additional Groundwater Considerations

The Facility is in the Redding Hydrologic Area (No. 508.10), as depicted on hydrologic maps prepared by the Department of Water Resources (DWR) in August 1986. The mean annual rainfall is approximately 38 inches and the 100-year annual rainfall is approximately 61 inches per year.

According to the DWR Groundwater Information Center (GIC) Interactive map using Spring 2017 data, the depth to regional groundwater below the Facility ranges from 50 to 38 feet bgs and groundwater flows to the east-northeast with a gradient of 0.01 feet/foot. Published under the same DWR interactive map application, regional groundwater quality data obtained in 2006 from a well located approximately 0.5 miles northwest of the property and 300 feet deep shows relatively high groundwater quality with low EC (136 $\mu\text{mhos/cm}$), TDS (94 mg/L) and dissolved nitrate (4 mg/L), and trace concentrations of dissolved metals: arsenic (0.64 $\mu\text{g/L}$), chromium (1.01 $\mu\text{g/L}$), and copper (0.81 $\mu\text{g/L}$) (DWR Well No. 30N04W05K001M).

Monitoring and Reporting Program R5-2011-0090 required the Discharger to develop a monitoring well network at the Facility. In December 2011, six shallow groundwater monitoring wells were installed, ranging in depth from 14 to 30 feet. Wells MW-1, MW-2, and MW-3 were installed west of the storage/disposal ponds and wells MW-4, MW-5, and MW-6 were installed east of the ponds along the Sacramento River.

Basin Plan, Beneficial Uses and Regulatory Considerations

The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition, revised July 2016* (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. 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.

Antidegradation and Additional Regulatory Concerns

The Discharger has been monitoring groundwater quality at the site since 2011. Based on available data, it is not possible to determine pre-1968 shallow groundwater quality. Therefore, determination of compliance with Resolution 68-16 for this facility must be based on existing background shallow groundwater quality.

The discharge and the potential for groundwater degradation allowed in 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 the water quality objectives (WQOs) as defined in the Basin Plan, or unreasonably affect present and anticipated beneficial uses, (b) the Discharger has implemented BPTC to minimize degradation, and (c) the limited degradation is of the maximum benefit to the people of the State.

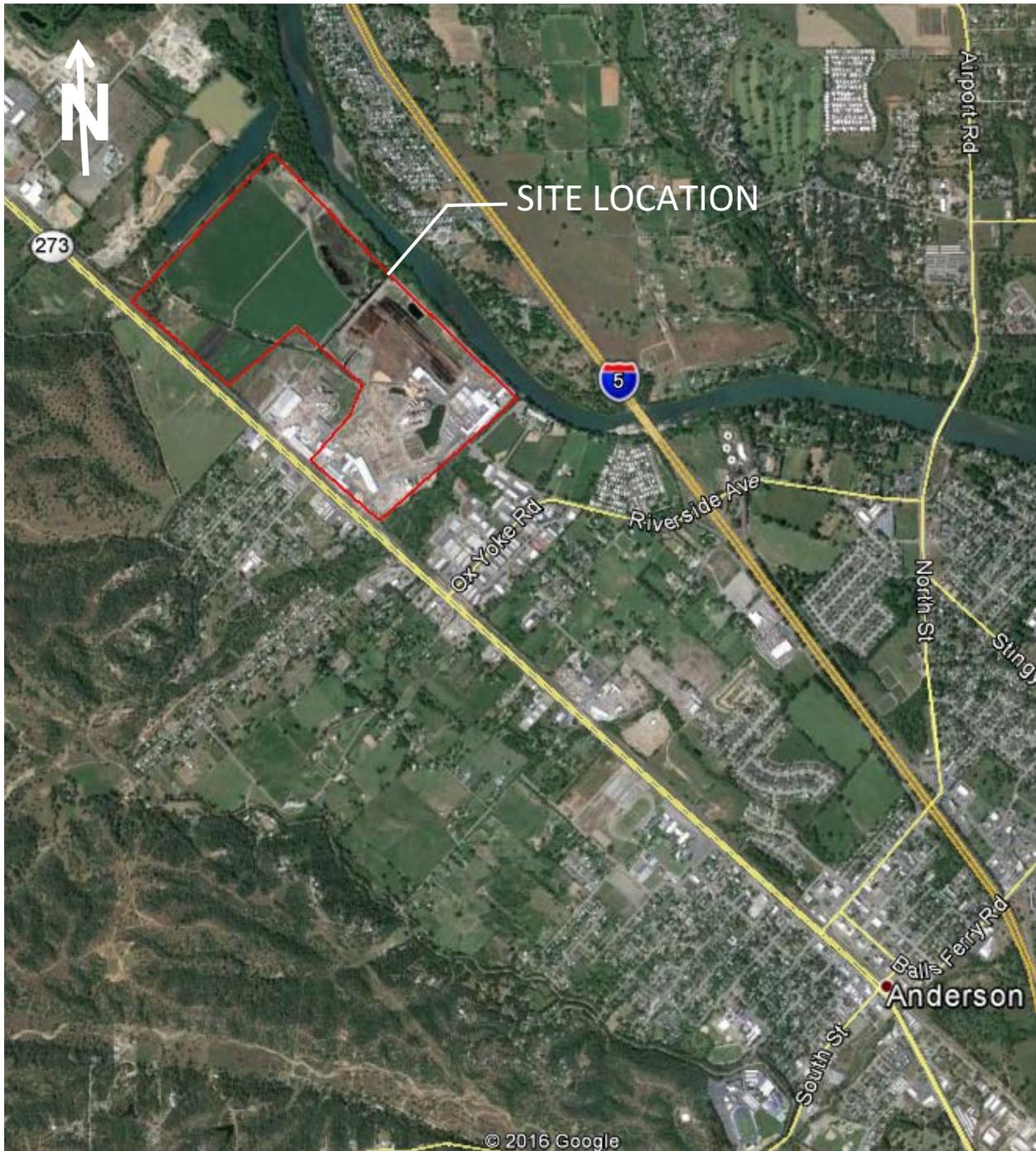
Available groundwater data show inconsistent background water quality. Well MW-3 shows impacts from site activities, or nearby offsite activities, and MW-2 water quality appears to be the lowest of all onsite wells. Historical groundwater data suggest that WQOs for electrical conductivity, total dissolved solids, arsenic, iron, manganese, and thallium are regularly exceeded at well locations MW-2, MW-4, and MW-5. However, past reporting has included Total Recoverable Metals analysis rather than Dissolved Metals, as this Order requires.

This Order requires additional monitoring well(s) to appropriately determine background water quality, particularly for the land application areas and Pond 1 area, and also requires dissolved metals analysis for ponds and groundwater to determine compliance with WQOs.

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.

ATTACHMENT A - LOCATION MAP



DRAWING REFERENCE:
GOOGLE EARTH
MAP DATA: © 2016 GOOGLE
NO SCALE

SITE LOCATION MAP
SIERRA PACIFIC INDUSTRIES
ANDERSON DIVISION
SHASTA COUNTY

ATTACHMENT B - FACILITY MAP



DRAWING REFERENCE:
GOOGLE EARTH
MAP DATA: © 2016 GOOGLE
NO SCALE

FACILITY MAP
SIERRA PACIFIC INDUSTRIES
ANDERSON DIVISION
SHASTA COUNTY

ATTACHMENT C – PROCESS FLOW DIAGRAM



ATTACHMENT D
REQUIREMENTS FOR MONITORING WELL INSTALLATION WORKPLANS AND
MONITORING WELL INSTALLATION REPORTS

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing, at a minimum, the information listed in Section 1, below. Wells may be installed after staff approves the workplan. Upon installation of the monitoring wells, the Discharger shall submit a well installation report which includes the information contained in Section 2, below. All workplans and reports must be prepared under the direction of, and signed by, a registered geologist or civil engineer licensed by the State of California.

SECTION 1 - Monitoring Well Installation Workplan and
Groundwater Sampling and Analysis Plan

The monitoring well installation workplan shall contain the following minimum information:

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions
- Proposed monitoring well locations and rationale for well locations
- Topographic map showing facility location, roads, and surface water bodies
- Large scaled site map showing all existing on-site wells, proposed wells, surface drainage courses, surface water bodies, buildings, waste handling facilities, utilities, and major physical and man-made features

B. Drilling Details:

- On-site supervision of drilling and well installation activities
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals (if appropriate) and logging methods

C. Monitoring Well Design (in narrative and/or graphic form):

- Diagram of proposed well construction details
 - Borehole diameter
 - Casing and screen material, diameter, and centralizer spacing (if needed)
 - Type of well caps (bottom cap either screw on or secured with stainless steel screws)
 - Anticipated depth of well, length of well casing, and length and position of perforated interval
 - Thickness, position and composition of surface seal, sanitary seal, and sand pack
 - Anticipated screen slot size and filter pack

- D. Well Development (not to be performed until at least 48 hours after sanitary seal placement):
Method of development to be used (i.e., surge, bail, pump, etc.)
Parameters to be monitored during development and record keeping technique
Method of determining when development is complete
Disposal of development water
- E. Well Survey (precision of vertical survey data shall be at least 0.01 foot):
Identify the Licensed Land Surveyor or Civil Engineer that will perform the survey
Datum for survey measurements
List well features to be surveyed (i.e. top of casing, horizontal and vertical coordinates, etc.)
- F. Schedule for Completion of Work
- G. Appendix: Groundwater Sampling and Analysis Plan (SAP)
The Groundwater SAP shall be included as an appendix to the workplan, and shall be utilized as a guidance document that is referred to by individuals responsible for conducting groundwater monitoring and sampling activities.

Provide a detailed written description of standard operating procedures for the following:

- Equipment to be used during sampling
- Equipment decontamination procedures
- Water level measurement procedures
- Well purging (include a discussion of procedures to follow if three casing volumes cannot be purged)
- Monitoring and record keeping during water level measurement and well purging (include copies of record keeping logs to be used)
- Purge water disposal
- Analytical methods and required reporting limits
- Sample containers and preservatives
- Sampling
 - o General sampling techniques
 - o Record keeping during sampling (include copies of record keeping logs to be used)
 - o QA/QC samples
- Chain of Custody
- Sample handling and transport

SECTION 2 - Monitoring Well Installation Report

The monitoring well installation report must provide the information listed below. In addition, the report must also clearly identify, describe, and justify any deviations from the approved workplan.

A. General Information:

Purpose of the well installation project
Brief description of local geologic and hydrogeologic conditions encountered during installation of the wells
Number of monitoring wells installed and copies of County Well Construction Permits
Topographic map showing facility location, roads, surface water bodies
Scaled site map showing all previously existing wells, newly installed wells, surface water bodies, buildings, waste handling facilities, utilities, and other major physical and man-made features.

B. Drilling Details (in narrative and/or graphic form):

On-site supervision of drilling and well installation activities
Drilling contractor and driller's name
Description of drilling equipment and techniques
Equipment decontamination procedures
Soil sampling intervals and logging methods
Well boring log

- Well boring number and date drilled
- Borehole diameter and total depth
- Total depth of open hole (same as total depth drilled if no caving or back-grouting occurs)
- Depth to first encountered groundwater and stabilized groundwater depth
- Detailed description of soils encountered, using the Unified Soil Classification System

C. Well Construction Details (in narrative and/or graphic form):

Well construction diagram, including:

- Monitoring well number and date constructed
- Casing and screen material, diameter, and centralizer spacing (if needed)
- Length of well casing, and length and position of perforated interval
- Thickness, position and composition of surface seal, sanitary seal, and sand pack
- Type of well caps (bottom cap either screw on or secured with stainless steel screws)

E. Well Development:

Date(s) and method of development
How well development completion was determined
Volume of water purged from well and method of development water disposal
Field notes from well development should be included in report

F. Well Survey (survey the top rim of the well casing with the cap removed):

Identify the coordinate system and datum for survey measurements
Describe the measuring points (i.e. ground surface, top of casing, etc.)
Present the well survey report data in a table
Include the Registered Engineer or Licensed Surveyor's report and field notes in appendix.

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.

Waste Discharge to Land

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:

1. 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

Waste Discharge to Land

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. For a corporation: by a principal executive officer of at least the level of senior vice-president.
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor.
 - c. For a municipality, state, federal or other public agency: 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

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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, Division 3, 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

Waste Discharge to Land

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:

Waste Discharge to Land

- 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.

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- 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

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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 industrial 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 than 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.

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- 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