

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 Therefore, Order R5-2011-0090 will be rescinded and replaced with this Order.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