

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2016-XXXX

WASTE DISCHARGE REQUIREMENTS

FOR

SIERRA PACIFIC INDUSTRIES
CHINESE CAMP MILL
TUOLUMNE COUNTY

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

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 Order 97-132 is out of date and no longer adequately describes the discharge or regional board plans and policies. Therefore, Order 97-132 will be rescinded and replaced with this Order.

Facility and Discharge

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

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

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

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

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

TABLE 1. Wastewater Quality

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

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

². Median pH.

³. 5-day Biochemical Oxygen Demand.

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

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

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

Proposed Changes

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

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

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

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

Site-Specific Conditions

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

Groundwater Conditions

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

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

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

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

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

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

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

1. Recommended/Upper Secondary MCL.
2. Primary MCL.
3. Secondary MCL.

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

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

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

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

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

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

1. Recommended / Upper Secondary MCLs.
2. Primary MCL.
3. Secondary MCL.

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

Basin Plan, Beneficial Uses, and Regulatory Considerations

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

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

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

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

Antidegradation Analysis

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

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

48. The Discharger provides or will provide, as required by this Order treatment and control of the discharge that incorporates:
 - a. Segregation of storm water runoff;
 - b. Screening to remove solids;
 - c. Aerator(s) within the Upper Pond to control odors and nuisance conditions;
 - d. Proper clean out and disposal of solids collected in the ponds;
 - e. Discharge of excess water to the land spreading area to prevent overflow of the ponds;
 - f. Proper maintenance and inspection of all runoff controls and equipment within the ponds and land spreading area;
 - g. Evaluate and implement improvements to the Upper Pond, as needed to ensure the shallow groundwater does not infiltrate into the pond; and
 - h. Groundwater monitoring to monitor the impact of the discharge on first encountered groundwater.

49. The treatment and control measures described in [Finding 48](#), in combination with the requirements of this Order, represent BPTC. Adoption of this Order will result in the implementation of BPTC. In addition, this Order requires monitoring to evaluate potential groundwater impacts from the discharge and confirm that BPTC measures are sufficiently protective of groundwater quality.

50. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State. The Discharger supplies a needed product service, and aids in the economic prosperity of the region by direct employment and provides a tax base for local and state governments. Provided the discharge complies with State and Central Valley Water Board plans and policies, there is sufficient justification for allowing the limited groundwater degradation that may occur pursuant to this Order.

51. This Order is consistent with the *Antidegradation Policy* since; (a) the limited degradation allowed by this Order will not result in water quality less than water quality objectives, or unreasonably affect present and anticipated beneficial uses, (b) the Discharger has implemented BPTC to minimize degradation, and (c) the limited degradation is of maximum benefit to people of the State.

Other Regulatory Considerations

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

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

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

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

55. The discharge authorized herein, and the treatment and storage facilities associated with the discharge, are exempt from the requirements of Title 27 as follows:

- a. The discharge of process wastewater and storm water to the unlined percolation/evaporation ponds and land spreading area are exempt pursuant to Title 27, section 20090(b) because they are discharge of wastewater to land and:
 - i. The Central Valley Water Board is issuing WDRs.
 - ii. The discharge is in compliance with the Basin Plan, and;
 - iii. The discharge does not need to be managed as a hazardous waste.

56. The United States Environmental Protection Agency (USEPA), on 16 November 1990, promulgated storm water regulations (40 CFR Parts 122, 123, and 124) which require specific categories of industrial facilities which discharge storm water to obtain NPDES permits and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate industrial storm water pollution.
57. On 1 April 2014, the State Water Board adopted Order 2014-0057-DWQ (NPDES General Permit CAS000001) specifying waste discharge requirements for discharges of storm water associated with industrial activities. Order 2014-0057-DWQ supersedes State Water Board Order 97-03-DWQ (NPDES General Permit CAS000001) and became effective on 1 July 2015. Order 2014-0057-DWQ requires all applicable industrial dischargers to apply for coverage under the General Order by the effective date. The Discharger has submitted a Notice of Intent and a Stormwater Pollution Prevention Plan to obtain coverage under the Industrial Storm Water General Permit for those storm water discharges at the Facility not covered by these WDRs.
58. The USEPA published *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (hereafter "Unified Guidance") in 2009. As stated in the Unified Guidance, the document:

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

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

59. Water Code section 13267(b) states:

In conducting an investigation specified in subdivision (a), the regional board may

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

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

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

Public Notice

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

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

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

A. Discharge Prohibitions

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

B. Discharge Specifications

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

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

C. Land Spreading Area Specifications

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

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

D. Solids Disposal Specifications

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

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

E. Groundwater Limitations

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

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

F. Provisions

1. The Discharger shall comply with Monitoring and Reporting Program R5-2016-XXXX, which is part of this Order, and any revisions thereto as ordered by the Executive

Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.

2. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are attached hereto and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."
3. As described in the Standard Provisions, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.
4. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
5. In the event of any change in control or ownership of the facility, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.
6. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.
7. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.
8. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and

task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

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

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

	<u>Task</u>	<u>Compliance Date</u>
a.	Survey the bottom of the Upper Pond and evaluate the potential for high groundwater to intersect the bottom of the pond, and submit a technical report with the results of the pond evaluation, subject to Executive Officer approval. The technical report, should include a Work Plan and time schedule, if necessary, to reconfigure the Upper Pond so that high groundwater will no longer intersect the bottom of the pond.	<9 months> following adoption of this Order.
b.	Begin reconfiguration of the Upper Pond.	<90 days> following approval of the Work Plan
c.	Submit technical report on completion of the reconfiguration of the Upper Pond.	In compliance with the time schedule but no later than <2 years> following adoption of this Order.

14. **By <6 months following adoption of the Order>**, the Discharger shall submit a Solids Management Plan, subject to Executive Officer approval. The Solids Management Plan shall characterize the solids (or sludge) removed from the wastewater ponds with respect to nutrients, salts, and metals; identify potential disposal or beneficial reuse options (i.e., soil supplement, biomass fuel, or other uses); and select an appropriate method(s) to dispose of the material.
15. **By <6 months following adoption of the Order>**, the Discharger shall submit a technical report prepared by a California registered engineer with a revised water balance demonstrating that there is sufficient capacity within the wastewater ponds and land spreading area to contain all wastewater and storm water during a 100-year wet year despite high groundwater levels, and document that all runoff controls and procedures are in place and operational. The technical report should include specific procedures for personnel to manage wastewater within the ponds and land spreading area, and provide contingency plans in the event of a potential failure or breach in the system.

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

16. The Central Valley Water Board is currently implementing the CV-SALTS initiative to develop a Basin Plan amendment that will establish a salt and nitrate management plan for the Central Valley. Through this effort the Basin Plan will be

amended to define how the narrative water quality objectives are to be interpreted for the protection of agricultural use. If new information or evidence indicates that groundwater limitations different than those prescribed herein are appropriate, this Order will be reopened to incorporate such limits.

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

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

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

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

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

PAMELA C. CREEDON, Executive Officer

Order Attachments:

A Site Location Map

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