CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

WASTE DISCHARGE REQUIREMENTS ORDER R5-2013-0062
FOR
MARIPOSA COUNTY
DON PEDRO SEWER ZONE 1
WASTEWATER TREATMENT FACILITY
MARIPOSA COUNTY

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

Background

1. On 3 January 2005, Mariposa County (Discharger) submitted a Report of Waste Discharge (RWD) for the construction of a new wastewater treatment facility (WWTF), a recycled water project, and an increase in wastewater flows. Various submittals dated 18 April 2005, 11 October 2005, 23 December 2005, 8 May 2006, and 26 June 2006 were submitted to provide additional information.

2. The Discharger owns and operates the new Don Pedro Sewer Zone 1 WWTF and is responsible for compliance with these Waste Discharge Requirements (WDRs)

3. The new WWTF provides sewerage to a small residential development called Lake Don Pedro, in the Sierra foothills approximately eight miles east of the community of La Grange.

4. The new WWTF is at 2267 Ranchito Drive, La Grange (section 31, Township 3 South, Range 15 East, MDB&M). The WWTF occupies Assessor's Parcel Numbers (APN) 001-260-015 and 001-260-016, as shown on Attachment A, which is attached hereto and made part of this Order by reference.

5. WDRs Order 94-281, adopted by the Central Valley Water Board on 16 September 1994, prescribes requirements for the old WWTF (section32, Township 3 South, Range 15 East, MDB&M). Order 94-281 allows a monthly average dry weather flow up to 0.040 million gallons per day (mgd) and a daily maximum of 0.065 mgd from the former WWTF to the Lake Don Pedro Golf Club and Resort, owned and operated by Mr. Frank Leonardi.

6. Water Reclamation Requirements (WRRs) 94-278 and Cease and Desist Order (CDO) 94-282 were adopted on 16 September 1994. WRRs 94-278 prescribe reclamation requirements for the use of recycled water on the golf course. CDO 94-282 was issued primarily for ongoing violations associated with inadequate treatment and disposal capacity issues. CDO 94-282 requires the Discharger to cease discharging contrary to WDRs Order 94-281 and includes time schedules for implementing interim and long term measures to achieve compliance with WDRs Order 94-281. Special Order 97-017

adopted on 24 January 1997, modifies CDO 94-282 to provide the Discharger additional time to comply with the CDO.

7. To comply with CDO 94-282, the Discharger constructed the new WWTF, which went on-line in early 2008. The former WWTF has been decommissioned and no longer exists. The new WWTF does not have WDRs. WDRs 94-281, will be rescinded and replaced with this Order. WRRs 94-278 was rescinded at the April 2013 Board Meeting of the Central Valley Water Board. CDO 94-282 and Special Order 97-017 were rescinded with Order R5-2013-0084.

Wastewater Treatment Facility and Disposal

8. According to the January 2005 RWD, the new WWTF consists of a headworks, magnetic flow meter, extended aeration basin, clarifier, chlorine contact basin, a lined storage pond, and four concrete lined sludge drying beds with decanting structures. The WWTF has a design treatment capacity of 80,000 gpd. Secondary disinfected recycled water is spray irrigated over 40 acres of land owned by the Discharger. A flow schematic of the new WWTF and sprayfields (Use Area) is shown on Attachment B which is made part of this Order.

9. The Discharger has a 10-year lease agreement with a local farmer to allow beef cattle to graze on the 40 acre Use Area. The cattle typically graze the Use Area from March through July.

10. In March 2005, the Discharger submitted a Title 22 Engineering Report to the Department of Public Health (DPH) for the proposed recycled water project that includes the discharge of secondary disinfected recycled water to 40 acre Use Area to grow forage crops.

11. According to the November 2007 Construction Quality Assurance Certification Report the storage pond was constructed with a 60-mil HDPE liner. The sludge drying beds are concrete lined.

12. Tailwater management includes sprinkler application of secondary disinfected recycled water at a rate of 0.25 inch/hour. The Use Area consists of rolling hills that have swale type drainage areas. The Use Area has internal berms that intercept recycled water runoff prior to it reaching the drainage areas and a tailwater collection system consisting of eight tailwater pump stations at low points near the south boundary of the Use Area. The tailwater pump stations are designed to return recycled water runoff back to the effluent storage pond.

13. According to the RWD, stormwater management practices include, not irrigating the Use Areas at least 24 hours before a predicted rainfall and not resuming irrigation until 48 hours after any rainfall to minimize the potential of surface runoff of recycled water.

Other stormwater management practices include a moisture-sensing switch and wind anemometer at the irrigation pump station that serve as back-ups to prevent the irrigation pumps from turning on and discharging to the Use Area when it is likely to rain or it is too windy. Stormwater is allowed to run off-site.

14. The 100-year water balance included in the RWD shows that the storage capacity of the storage pond will need to be 10 acre-feet to accommodate flows of 80,000 gpd. The storage capacity of the pond is 10 acre-feet

15. Sludge produced from the WWTF will be dried in concrete lined sludge drying beds. According to the RWD, dried sludge will either be hauled off-site to a permitted landfill or used as soil amendment. The RWD does not describe specific sludge/biosolids drying, storage, and disposal practices. A provision requiring the Discharger to submit a technical report describing its specific solids and sludge/biosolids handling and disposal practices is included in this Order.

16. The Discharger's self-monitoring reports (SMRs) from January 2009 through December 2012 indicate the monthly average flow rates range from 0.012 mgd to 0.037 mgd. Yearly effluent averages for pH, chlorine residual, BOD, TSS are shown in Table 1.

Table 1. Effluent Quality

	pH[1] pH Units	Chlorine Residual mg/L	BOD mg/L	TSS mg/L
2009	8.17	0.72	6.40	17.00
2010	7.88	0.53	6.90	8.67
2011	7.75	0.29	5.72	8.73
2012	7.98	0.22	8.11	10.51

[1] Calculated by taking the average of the hydrogen ion and converting back to pH.

17. Monitoring and Reporting Program (MRP) 94-281 requires the Discharger to sample for general minerals on a yearly basis. The Discharger has not submitted general minerals for eight years based on SMRs from 2005 through 2012.

18. According to the October 2005 RWD supplement, the new WWTF will provide denitrification to produce an effluent with a total nitrogen concentration of about 10 mg/L. BOD and TN loading rates to the 40 acres are 0.14 lbs/acres/day and 60.91 lbs/acre/yr, respectively, based on the 2012 annual average effluent BOD of 8.11 mg/L and proposed total nitrogen of 10 mg/L, and design flow of 0.080 mgd.

Wastewater Collection System

19. The Discharger's collection system is comprised of about four miles of gravity sewer lines and one mile of force main. There are eight lift stations (Pump Station No. 1 through 7). Pump Station Nos. 1 through 5 are on the east side of the golf course. Pump Station No. 6 is on the west side of the golf course. Pump Station No. 7 is at the intersection of Ranchito Drive and Carrillo Way and Pump Station No. 8 is at the intersection of Ranchito Drive and Gaza Way

20. On 2 May 2006, the State Water Resources Control Board (hereafter State Water Board) adopted a General Sanitary Sewer System Order (State Water Resources Control Board Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*) (the "General Order"). The General Order requires that all public agencies that own or operate sanitary sewers systems greater than one mile in length comply with the General Order. The Discharger's collection system is greater than on mile in length. The Discharger has applied for, and is covered by, the General Order.

Site-Specific Conditions

21. Supply water in the Lake Don Pedro area is provided by the Lake Don Pedro Community Services District. Source water supply is a combination of surface and groundwater. Surface water is obtained from Lake McClure and groundwater is obtained from the Ranchito Well. Based on data in the 2011 Consumer Confidence Report, quality of source water is as follows.

Table 2. Source Water Quality

	TDS mg/L	EC umhos/cm	Sodium mg/L	Chloride mg/L	Hardness mg/L	Manganese mg/L	Sulfate mg/L
Ranchito Well	238	416	23	3.44	74	18	43
Surface Water	52	79	2.7		16		

22. The nearest surface water bodies are Browns Creek and Lake McClure. Browns Creek is tributary to Dry Creek, which is tributary to Merced River. Surface runoff during rainfall events flows towards Ranchito Road and then drains to the south of the WWTF into Browns Creek.

23. According to the Federal Emergency Management Agency maps (Map Numbers 06043C0100B and 06043C0225B) the WWTF and Use Area are in Zone X. This area is outside the one percent annual chance floodplain.

24. Soils in the vicinity of the WWTF are Auburn loam and Daulton, according to the Web Soil Survey published by the United States Department of Agriculture Natural Resources

Conservation Service. Auburn loam and Daulton have a land capability classification of 4e and 6e, respectively. Soils with "Class 4" classification have very severe limitations that restrict the choice of plants or require very careful management, or both. Soils with "Class 6" soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat. The subclass "e" indicates that the main problem with these soils is the hazard of erosion unless close-growing plant cover is maintained. The susceptibility to erosion and past erosion damage are the major soil-related factors affecting the soils that are assigned this subclass letter.

25. The WWTF and Use Area are in an arid climate characterized by dry summers and mild winters. The rainy season generally extends from November through April. Average annual pan evaporation in the discharge area is about 83 inches, according to the National Oceanic and Atmospheric Administration Technical Report NWS 34, *Mean Monthly, Seasonal, and Annual Pan Evaporation for the United States*. The average annual precipitation in the discharge area is about 20 inches based on 62 years of data collected by the Western Regional Climate Center.

26. Land uses in the vicinity of the WWTF consist of native vegetation and surface waters (i.e., Lake McClure, Lake Don Pedro Reservoir, and Browns Creek). There is a golf course east and residential development to the northeast of the WWTF, according to the Mariposa County 1998 Land Use Map published by the Department of Water Resources (DWR).

Groundwater Considerations

27. The WWTF does not have a groundwater monitoring network. According to the 2002 Mariposa County General Plan, the depth to groundwater in Mariposa County ranges from 2 ft to 30 ft below ground surfaced (bgs) based on potable wells sampled in 1971.

28. Based on Well Completion Reports from wells on the golf course, approximately 1,200 feet from the new WWTF, groundwater can be found at depths ranging from 20 ft to 125 ft bgs. The Well Completion Reports also indicates the lithology near the WWTF consists of about one to ten feet of topsoil before encountering schist and slate bedrock.

29. Groundwater movement is affected by fractures, faults, joints, and intrusions in the bedrock.

30. Lake Don Pedro Community Services District has a supply well ("Ranchito Well") approximately two miles northeast of the WWTF. The Ranchito Well has a total depth of 300 ft bgs and is screened from 65 to 125 ft bgs. Based on five groundwater samples taken in 2002, 2003, 2003, 2009, and 2012, groundwater in the area is of good quality with EC ranging from 138 umhos/cm to 416 umhos/cm, TDS ranging from 220 mg/L to

226 mg/L, nitrate as NO_3 from 3 mg/L to 4 mg/L, chloride from 2 mg/L to 6 mg/L, and sodium from 7 mg/L to 32 mg/L.

Basin Plan, Beneficial Uses, and Water Quality Objectives

31. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition, revised October 2011* (the "Basin Plan") designates beneficial uses, establishes narrative and numerical water quality objectives, contains implementation plans and policies for protecting all waters of the Basin, and incorporates, by reference, plans and policies of the State Water Board. In accordance with Water Code section 13263(a), these waste discharge requirements implement the Basin Plan.

32. The WWTF is in the Kassenbaum Flat Hydrologic Area (No. 537.10) of the Merced River Hydrologic Unit, as depicted on hydrologic maps prepared by State Water Resources Control Board. Local drainage is to Browns Creek. The Basin Plan does not specifically identify beneficial uses for Browns Creek, but does identify present and potential uses for Merced River to which Browns Creek, via Dry Creek, is tributary. The beneficial uses as stated in the Basin Plan, are municipal and domestic supply; agricultural supply, including irrigation; hydropower generation; water contact recreation, including canoeing and rafting; non-contact water recreation; warm and cold freshwater habitat; and wildlife habitat.

33. The Basin Plan designates the beneficial uses of underlying groundwater as municipal and domestic supply, agricultural supply, industrial service and industrial process supply.

34. The Basin Plan includes a water quality objective for chemical constituents that at a minimum, requires waters designated as domestic or municipal supply to meet the Maximum Contaminant Levels (MCLs) specified in Title 22 of the California Code of Regulations ("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.

35. The Basin Plan establishes narrative water quality objectives for Chemical Constituents, Taste and Odors, and Toxicity. The Toxicity objective, in summary, requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial uses. 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.

Antidegradation Analysis

36. State Water Board Resolution No. 68-16 ("*Policy with Respect to Maintaining High Quality Water of the State*") (the "Antidegradation Policy") prohibits 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.

37. The WWTF only treats domestic wastewater from a residential development; there are no industrial dischargers connected to the WWTF. Source water is of good quality and the minimal increase in organics, nutrients, and salts from domestic use will not cause wastewater to exceed water quality objectives. The Discharger also provides treatment of its wastewater to secondary disinfected recycled water standards, which exceeds the requirements of Title 22 for recycled wastewater applied to the Use Area. Proposed low flows will result in less than one-inch per day of recycled water being applied to the Use Area. BOD and TN loading rates to the Use Area will be 0.14 lbs/acres/day and 60.91 lbs/acre/yr, respectively, which are below agronomic rates. Based on this, the discharge is not expected to cause exceedances of water quality objectives nor impair beneficial uses.

38. This Order includes extensive influent, and effluent monitoring requirements to verify that the discharge does not cause violations of water quality objectives or impairment of beneficial uses.

39. The WWTF described in Findings 8 through 18, will provide treatment and control of the discharge that incorporates:

    a. Secondary treatment of wastewater;

    b. Recycling of wastewater for crop irrigation;

    c. An operation and maintenance manual;

    d. Lined storage pond to limit the amount of wastewater that percolates to groundwater.

e. Concrete lined sludge drying beds with decanting structures to minimize percolation to groundwater;

f. Certified operators to ensure proper operation and maintenance; and

g. Source water, and discharge monitoring.

The Board finds that the preceding treatment and control measures represent BPTC for this discharge.

40. Generally, limited degradation of groundwater by some of the typical waste constituents of concern (e.g., EC and nitrate) released with discharge from a municipal wastewater utility after effective source control, treatment, and control is consistent with maximum benefit to the people of the state. The technology, energy, and waste management advantages of municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impacts on water quality will be substantially less. The economic prosperity of valley communities and associated industry is of maximum benefit to the people of the state, and therefore provides sufficient reason to accommodate planned growth and allow for limited groundwater degradation.

Water Recycling Regulatory Considerations

41. Undisinfected domestic wastewater contains human pathogens that are typically measured using total or fecal coliform organism as indicator organisms. DPH has primary statewide responsibility for protecting public health, has established statewide criteria in Title 22, section 60301 et seq. for the use of recycled water.

42. A 1996 Memorandum of Agreement (MOA) between DPH and the State Water Board on the use of recycled water establishes basic principles relative to the agencies and the regional water boards. In addition, the MOA allocates primary areas of responsibility and authority between these agencies, and provides for methods and mechanisms necessary to assure ongoing, continuous future coordination of activities relative to the use of recycled water in California. This Order implements the applicable portions of the Title 22 water recycling regulation in accordance with the MOA.

43. On 3 February 2009, the State Water Board adopted Resolution 2009-0011, *Adoption of a Policy for Water Quality Control for Recycled Water* (Recycled Water Policy). The Recycled Water Policy promotes the use of recycled water to achieve sustainable local water supplies and reduce greenhouse gases.

44. On 23 April 2009, the Central Valley Water Board adopted Resolution R5-2009-0028, *In Support of Regionalization, Reclamation, Recycling and Conservation for Wastewater Treatment Plant*. Resolution R5-2009-0028 encourages water recycling, water

conservation, and regionalization of wastewater treatment facilities. It requires the municipal wastewater treatment agencies to document:

a. Efforts to promote new or expanded wastewater recycling opportunities and programs;

b. Water conservation measures; and

c. Regional wastewater management opportunities and solutions (e.g., regionalization).

45. Title 22, section 60323, requires recyclers of treated municipal wastewater to submit an engineering report detailing the use of recycled water, contingency plans, and safeguards. The Discharger submitted a Title 22 Engineering Report to DPH on March 2005 and supplemental information on May 2005. By letter dated 20 May 2005, DPH conditionally approved the Title 22 Engineering Report, requiring the Discharger to satisfy certain provisions. These provisions include: implementing all of the responses in the Kennedy/Jenks letter dated 11 May 2005 and/or to include these in a final Title 22 Engineering Report and to submit a new or amended Title 22 Engineering Report to DPH if the Discharger proposes changes to the project. A provision requiring the Discharger to submit a letter discussing how it has satisfied the provisions in the 20 May 2005 DPH letter is included in this Order.

Other Regulatory Considerations

46. Based on the threat and complexity of the discharge, the WWTF 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 water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance."

b. Category B complexity: "Any discharger not included in 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."

47. Title 27 of the California Code of Regulations ("Title 27") contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste, which includes designated waste, as defined by Water Code section 13173. 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 discharges. The exemption, found at Title 27, section 20090, is described below:

> (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 regional water quality control board has issued WDRs, reclamation requirements, or waived such issuance;
>
> (2) The discharge is in compliance with 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.

48. The discharge authorized herein is exempt from the requirements of Title 27 in accordance with Title 27, section 20090(b) because:

    a. The Central Valley Water Board is issuing WDRs.
    b. The discharge is in compliance with the Basin Plan, and;
    c. The treated effluent discharged to Use Area does not need to be managed as hazardous waste.

49. The State Water Board adopted Order 97-03-DWQ (NPDES General Permit CAS000001) specifying waste discharge requirements for discharges of storm water associated with industrial activities, and requiring submittal of a Notice of Intent by all affected industrial dischargers. The wastewater treatment facility has a design capacity of less than 1.0 mgd; therefore, the Discharger is not required to obtain coverage under NPDES General Permit CAS000001.

50. Water Code section 13267(b) states that:

> In conducting an investigation specified in subdivision (a), the Central Valley Water 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…that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Central Valley Water Board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the Central Valley Water 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.

51. The technical reports required by this Order and monitoring reports required by the attached MRP R5-2013-0062 are necessary to assure compliance with these waste discharge requirements. The Discharger operates the wastewater treatment facility that discharges the waste subject to this Order.

52. DWR set standards for the construction and destruction of groundwater wells, as described in *California Well Standards Bulletin* 74-90 (June 1991). These standards, and any more stringent standards adopted by the State or county pursuant to California Water Code section 13801, apply to all monitoring wells.

53. Mariposa County adopted a Mitigated Negative Declaration (SCH #2004051148) in accordance with California Environmental Quality Act (CEQA) and filed a Notice of Determination on 22 February 2005 for the construction of the new WWTF design to handle up to 0.10 mgd average wet weather flow and the discharge to 46 acres. The mitigation measures are not related to water quality issues.

54. The Central Valley Water Board reviewed the Mitigated Negative Declaration as a responsible agency and concurred that the project will be an improvement over the former discharge and will not have a significant impact on water quality.

55. The United States Environmental Protection Agency (EPA) has promulgated biosolids reuse regulations in 40 Code of Federal Regulations part 503, Standards for the Use or Disposal of Sewage Sludge, which establish management criteria for protection of ground and surface waters, sets limits and application rates for heavy metals, and establishes stabilization and disinfection criteria. The Discharger may have separate and/or additional compliance, reporting, and permitting responsibilities to EPA.

56. 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

57. 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 conditions of discharge of this Order.

58. The Discharger and interested agencies and persons have been notified of the intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

59. All comments pertaining to the discharge were heard and considered in a public meeting.

IT IS HEREBY ORDERED that Waste Discharge Requirements Order 94-281 is rescinded and that pursuant to Water Code sections 13263 and 13267, Mariposa County, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. Discharge of waste to surface waters or surface water drainage courses is prohibited.

2. Discharge of hazardous wastes, as that term is defined in California Code of Regulations, title 22, section 66261.1 *et seq*., is prohibited. Discharge of waste classified as 'designated', as defined in Water Code section 13173, is prohibited.

3. Bypass or overflow of untreated or partially treated wastes, except as allowed by Standard Provisions E.2 in *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991, is prohibited.

4. Discharge of wastewater in a manner or location other than that described herein or in the RWD is prohibited.

B. Flow Limitations [Compliance shall be determined at EFF-001]

1. The monthly average dry weather flow shall not exceed 0.08 mgd.

C. Effluent Limitations [Compliance shall be determined at EFF-001]

1. The effluent shall not have a pH less than 6.5 or greater than 9.0.

2. Effluent shall not exceed the following limitations:

Constituent	Unit	Monthly Average	Daily Maximum	7-Day Median
BOD_5[1]	mg/L	40	80	---
TSS[2]	mg/L	40	80	---
Total coliform organisms	MPN/100mL	---	240	23

[1] Five-day biochemical oxygen demand at 20ºC.
[2] Total suspended solids

3. The arithmetic mean of BOD_5 and TSS in effluent samples collected over a monthly period shall not exceed 20 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period (80 percent removal).

D. 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 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 waste treatment/containment structures and Use Area at all times.

4. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.

5. All conveyance, treatment, storage, and disposal units 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 effluent (treatment works, percolation ponds) shall be precluded through such means as fences, signs, or acceptable alternatives.

7. Objectionable odors shall not be perceivable beyond the limits of the WWTF property at an intensity that creates or threatens to create nuisance conditions.

8. As a means of discerning compliance with Discharge Specification D.7, 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 weekly 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.

9. The Discharger shall maintain and operate ponds sufficiently to protect the integrity of containment levees and prevent overtopping or overflows. 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 shall never be less than two feet (measured vertically). As a means of management and to discern compliance with this Provision, the Discharger shall install and maintain a permanent marker with calibration that indicates the water level at the design capacity and enables determination of available operational freeboard.

10. The 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 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.

11. On or about **1 October** of each year, available pond storage capacity shall be at least equal the volume necessary to comply with Flow Limitation B.1.

12. All ponds shall be managed to prevent breeding of mosquitoes. In particular,

    a. An erosion control plan should assure that coves and irregularities are not created around the perimeter of the water surface.

    b. Weeds shall be minimized through control of water depth, harvesting, and herbicides.

    c. Dead algae, vegetation and other 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.

13. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within the pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.

14. The Discharger shall periodically monitor sludge accumulation in the wastewater treatment/storage ponds and shall remove sludge as necessary to maintain adequate treatment and storage capacity.

E. Water Recycling Specifications

1. For the purpose of this Order “Use Area” means an area with defined boundaries where recycled water is used or discharged.

2. Notwithstanding the following requirements, the production, distribution, and use of recycled water shall conform to an Engineering Report prepared pursuant to Title 22, section 60323 and approved by the DPH.

3. The recycled water shall be at least disinfected secondary 23 recycled water as defined in Title 22, section 60301.

4. Recycled water shall be used in compliance with Title 22, section 60304. Specifically, uses of recycled water shall be limited to those set forth in Title 22, section 60304(c).

5. Tailwater runoff and spray of recycled water shall not be discharged outside of the Use Area.

6. The volume of recycled water applied to the Use Area shall not exceed reasonable agronomic rates based on the vegetation grown, pre-discharge soil moisture conditions, and weather conditions.

7. Hydraulic loading of recycled water and supplemental irrigation water (if any) shall be at reasonable agronomic rates designed to:

    a. Maximize crop nutrient uptake;
    b. Maximize breakdown of organic waste constituents in the root zone; and
    c. Minimize the percolation of waste constituents below the root zone.

8. No recycled water used for irrigation, or soil that has been irrigated with recycled water, shall come into contact with the edible portion of food crops that may be eaten raw by humans.

9. Irrigation of the Use Area shall occur only when appropriately trained personnel are on duty.

10. The Use Area shall be inspected as frequently as necessary to ensure continuous compliance with the requirements of this Order.

11. Discharge to the Use Area shall not be performed during rainfall or when the ground is saturated. Discharge to the Use Area shall cease at least 24 hours prior to a predicted precipitation event and shall not be restarted until at least 48 hours following precipitation events.

12. The irrigation with recycled water shall be managed to minimize erosion within the Use Area.

13. The Use Area shall be managed to prevent breading of mosquitoes. In particular:

    a. There shall be no standing water 48 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 recycled water.

14. The Use Area shall be designed, maintained, and operated to comply with the following setback requirements:

Setback Definition	Minimum Irrigation Setback (feet)
Edge of Use Area to property boundary	25
Edge of Use Area to public road right of way	30
Edge of Use Area to manmade or natural surface water drainage course	50
Edge of Use Area to domestic water supply well	100
Toe of recycled water impoundment berm to domestic water supply well	100
Edge of Use Area to residence	100
Edge of Use Area using spray irrigation to public park, playground, school yard, or similar place of potential public exposure	100

15. Spray irrigation with recycled water is prohibited when wind speed (including gusts) exceeds 30 mph.

16. Sprinkler heads shall be designed, operated, and maintained to create a minimum amount of mist.

17. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities.

18. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.

19. Public contact with recycled water shall be controlled using fences, signs, and other appropriate means.

20. Sections of the Use Area that are accessible to the public shall be posted with signs that are visible to the public and no less than four inches high by eight inches wide. Signs shall be placed at all areas of public access and around the perimeter of all Use Areas and at above-ground portions of recycled water conveyances to alert the public of the use of recycled water. All signs shall display an international symbol similar to that shown in Attachment C, which is attached and forms part of this Order, and shall include the following wording:

“RECYCLED WATER – DO NOT DRINK”
“AGUA DE DESPERDICIO RECLAMADA – NO TOME”

21. All recycling equipment, pumps, piping, valves, and outlets shall be marked to differentiate them from potable water facilities. All recycled water distribution system piping shall be purple pipe or adequately wrapped with purple tape.

22. Recycled water controllers, valves, and similar appurtenances shall be affixed with recycled water warning signs, and shall be equipped with removable handles or locking mechanisms to prevent public access or tempering.

23. Quick couplers, if used, shall be different than those used in potable water systems.

24. Hose bibs and unlocked valves, if used, shall not be used in areas accessible to the public.

25. No physical connection shall exist between recycled water piping and any potable water supply system (including domestic wells), or between recycled water piping and any irrigation well that does not have an approved air gap or reduced pressure principle device.

26. There shall be at least a ten-foot horizontal and a one-foot vertical separation between all pipelines transporting recycled water and those transporting domestic supply, and the domestic supply pipeline shall be located above the recycled water pipeline.

27. No physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water or auxiliary water source system.

28. A public water supply shall not be used a backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of California Code of Regulations, title 17, sections 7602(a) and 7603(a).

29. All recycled water piping and appurtenances in new installations and appurtenances in retrofit installations shall be colored purple or distinctively wrapped with purple tape in accordance with California Health and Safety Code section 4049.54.

30. Any backflow prevention device installed to protect a public water system shall be inspected and maintained in accordance with California Code of Regulations, title 17, section 7605.

F. Solids and Sludge/Biosolids Disposal Specifications

Sludge in this document means the solid, semisolid, and liquid residues removed during primary, secondary, or advance wastewater treatment processes. Solid waste refers to

grit and screening material generated during preliminary treatment. Residual sludge means sludge that will not be subject to further treatment at the WWTF. Biosolids refers to sludge that has been treated and tested and shown to be capable of being beneficially used as soil amendment for agriculture, silviculture, horticulture, and land reclamation activities pursuant to federal and state regulations.

1. Sludge and solid waste shall be removed from screens, sumps, aeration basins, ponds, clarifiers, etc., as needed to ensure optimal plant operation.

2. Any handling and storage of residual sludge, solid waste, and biosolids on property of the WWTF shall be temporary (i.e., no longer than two years) and 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. Residual sludge, solid waste, and biosolids shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27. Removal for further treatment, disposal, or reuse at sites (i.e., landfill, composting sites, and soil amendment sites) operated in accordance with valid waste discharge requirements issued by the Central Valley Water Board will satisfy this specification.

4. Use of biosolids as a soil amendment shall comply with valid waste discharge requirements issued by a regional water board or the State Water Board or a local (e.g., county) program authorized by a regional water board. In most cases, this means the General Biosolids Order (State Water Board Water Quality Order No. 2004-12-DWQ, “General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities”). For a biosolids use project to be authorized by the General Biosolids Order, the Discharger must file a complete Notice of Applicability for each project.

5. Any proposed change in sludge use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

G. Groundwater Limitations

1. Release of waste constituents from any treatment, reclamation or storage component associated with the discharge shall not cause or contribute to groundwater:

   a. Containing constituent concentrations in excess of the concentrations specified below or natural background quality, whichever is greater:

      (i) Nitrate (as N) of 10 mg/L.

(ii) For constituents identified in Title 22, the MCLs quantified therein.

b. Containing Total Coliform Organisms over any 7-day period equaling or exceeding 23 MPN/100 mL.

H. Provisions

1. The Discharger shall comply with MRP R5-2013-0062, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer.

2. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements,* dated 1 March 1991 (Standard Provisions), which are part of this Order.

3. **By 27 September 2013**, the Discharger shall submit a Solids Management Plan that describes proposed solids handling practices and how compliance with the Solids Disposal Specifications and monitoring requirements of this Order will be achieved.

4. **By 27 September 2013**, the Discharger shall submit a letter discussing how it has satisfied the provisions in the 20 May 2005 DPH letter regarding Title 22.

5. All technical reports and work plans required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. As required by these laws, completed technical reports and work plans must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work. All reports required herein are required pursuant to Water Code section 13267.

6. 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. The Discharger shall proceed with all work required by the following provisions by the due dates specified.

7. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Accordingly, the Discharger shall submit to the Central Valley Water Board on or before each report due date the specified document or, if an action is specified, a written report detailing evidence of compliance with the date and task. If noncompliance is being reported, the reasons for such noncompliance shall be

stated, plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter 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 must 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 include 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 only when the operation is necessary to achieve compliance with the conditions of this Order.

9. The Discharger shall provide certified wastewater treatment plant operators in accordance with Chapter 26 of Division 3 of Title 23 of the California Code of Regulations.

10. 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 continue to maintain coverage under, and comply with Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2006-0003-DWQ and the Revised General WDRs Monitoring and Reporting Program Order 2006-0002-EXEC, and any subsequent revisions thereto as adopted by the State Water Board. Water Quality Order 2006-0003 and Order 2008-0002-EXEC requires the Discharger to notify the Central Valley Water Board and take remedial action upon the reduction, loss, or failure of the sanitary sewer system resulting in a sanitary sewer overflow.

13. The Discharger shall not allow pollutant-free wastewater to be discharged into the WWTF collection, treatment, and disposal systems in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means storm water (i.e., inflow), groundwater (i.e., infiltration), cooling waters, and condensates that are essentially free of pollutants.

14. 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.

15. In the event of any change in control or ownership of land or waste treatment and storage facilities presently owned or controlled by the Discharger, the Discharger shall 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.

16. To assume operation 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 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.

17. A copy of this Order, including its 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.

18. If the Central Valley Water Board determines that waste constituents in the discharge have reasonable potential to cause or contribute to an exceedance of an objective for groundwater, this Order may be reopened for consideration of addition or revision of appropriate numerical effluent or groundwater limitations for potential constituents.

19. 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 plant for the Central Valley. Through this effort the Basin Plan may 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 are different that those prescribed herein are appropriate, this Order will be reopened to incorporate such limits.

20. 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, section 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 filling 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 the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 31 May 2013.

Original signed by:

_____

PAMELA C. CREEDON, Executive Officer

Order Attachments:
A Site Location Map
B Flow Schematic
C Recycled Water Signage
Monitoring and Reporting Program R5-2013-0062
Information Sheet
Standard Provisions (1 March 1991)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2013-0062
FOR
MARIPOSA COUNTY
DON PEDRO SEWER ZONE 1
WASTEWATER TREATMENT FACILITY
MARIPOSA COUNTY

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

The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts or the Executive Officer issues a revised MRP. Changes to sample location shall be established with concurrence of Central Valley Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer. All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. All analyses shall be performed in accordance with *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991 (Standard Provisions).

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

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

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

A glossary of terms used within this MRP is included on page 9 and a list of the constituents required for the monitoring of Priority Pollutants is included in Table 1, which is on page 10.

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

Monitoring Location Name	Monitoring Location Description
INF-001	Location where a representative sample of the Facility's influent can be obtained prior to any additives, treatment processes, and plant return flow.
EFF-001	Location where a representative sample of the Facility's effluent can be obtained prior to discharge into the storage pond.
PND-001	Storage Pond No. 1
RSW-001	Ranchito Supply Well
SLD-001	Location where a representative sample of the Facility's sludge/biosolids can be obtained after removal from the sludge drying beds.
EFF-002	Location where the Facility's effluent flow can be measured after the storage ponds and prior to discharge to the Use Area.

INFLUENT MONITORING

The Discharger shall monitor the influent to the WWTF at INF-001 as follows:

Frequency	Constituent/Parameter	Units	Sample Type
Continuous	Flow	mgd	Meter
Weekly	pH	pH units	Grab
Weekly	EC	umhos/cm	Grab
Weekly	TSS	mg/L	24-hour composite
Weekly	BOD_5	mg/L	24-hour composite
Monthly	Monthly Average Discharge Flow	mg/L	Computed
Annually	General Minerals	mg/L	Grab

EFFLUENT MONITORING

The Discharger shall monitor treated effluent at EFF-001 as follows:

Frequency	Constituent/Parameter	Units	Sample Type
Continuous	Flow	mgd	Meter
Weekly	pH	pH Units	Grab

Frequency	Constituent/Parameter	Units	Sample Type
Monthly	EC	umhos/cm	Grab
Monthly	TDS	mg/L	24-hour composite
Weekly	BOD_5	mg/L	24-hour composite
Weekly	TSS	mg/L	24-hour composite
Monthly	Total coliform organisms	MPN/100mL	Grab
Monthly	TKN	mg/L	24-hour composite
Monthly	Nitrate (as Nitrogen)	mg/L	24-hour composite
Monthly	Ammonia Nitrate	mg/L	24-hour composite
Monthly	Total Nitrogen	mg/L	Computed
Annually	General Minerals	mg/L	24-hour composite
One time	Priority Pollutants (see Table 1)	Varies[1]	Varies

[1] mg/L or ug/L, as appropriate.

POND MONITORING

A permanent marker (e.g., staff gages) shall be placed in the storage pond. The marker shall have calibrations indicating water level at the design capacity and available operational freeboard. Pond monitoring at PND-001 shall include at least the following:

Frequency	Constituent/Parameter	Units	Sample Type
Weekly	DO[1]	mg/L	Grab[2]
Weekly	Freeboard	Feet[3]	Observation
Weekly	Odors	---	Observation
Weekly	Berm Condition	---	Observation

[1] Should the DO be below 1.0 mg/L during a weekly sampling event, the Discharger shall take all reasonable steps to correct the problem and commence daily DO monitoring in the affected ponds until the problem has been resolved.

[2] DO shall be measured between 8:00 am and 10:00 am and shall be taken opposite the pond inlet at a depth of approximately one-foot.

[3] To the nearest tenth of a foot.

The Discharger shall inspect the condition of the storage pond weekly and record visual observations in a bound logbook. Notations shall include observations of whether weeds are developing in the water or along the bank, and their location; whether grease, dead algae, vegetation, scum, or debris are accumulating on the storage pond surface and their location; whether burrowing animals or insects are present; and the color of the reservoirs (e.g., dark green, dull green, yellow, gray, tan, brown, etc.). A summary of the entries made in the log shall be included in the subsequent monitoring report.

SOURCE WATER MONITORING

The Discharger shall submit source water monitoring data for the Ranchito Well (RSW-001) collected by the Lake Don Pedro Community Services District. For each source (either well or surface water supply), the Discharger shall calculate the flow-weighted average concentrations for the specified constituents utilizing monthly flow data and the most recent chemical analysis conducted in accordance with Title 22 drinking water requirements. Alternatively, the Discharger may establish representative sampling stations within the distribution system serving the same area as is served by the WWTF.

Frequency	Constituent/Parameter	Units	Sample Type
Quarterly	Flow-Weighted EC	umhos/cm	Computed Average
Annually	General Minerals[1]	mg/L	Grab

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

SLUDGE/BIOSOLIDS MONITORING

The Discharger shall monitor sludge/biosolids at SLD-001 for the following:

Arsenic	Copper	Nickel
Cadmium	Lead	Selenium
Molybdenum	Mercury	Zinc

Monitoring shall be conducted: using the methods in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (SW-846) and updates thereto, as required in Title 40 of the Code of Federal Regulations (40 CFR), Part 503.8(b)(4).

The Discharger shall demonstrate that treated sludge (i.e., biosolids) meets Class A or Class B pathogens reduction levels by one of the methods listed in 40 CFR, Part 503.32. The Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 CFR, Part 503.33(b). The Discharger needs to demonstrate that the facility where sludge is hauled to complies with Title 40 CFR, Part 503.

USE AREA MONITORING

The Discharger shall monitor effluent applied to the Use Area at EFF-002. The Discharger must also perform the routine monitoring and loading calculations for each discrete irrigation

area within the Use Area. Data shall be collected and presented in tabular format in accordance with Table 2.

Frequency	Constituent/Parameter	Units	Sample Type
Continuous	Flow	mgd	Meter

In addition, the Discharger shall inspect the Use Area, at a minimum of, on a weekly basis. Evidence of erosion, field saturation, runoff, and the presence of nuisance conditions (i.e., flies, ponding, etc.) shall be noted in field logs and included as part of the quarterly monitoring reports.

REPORTING

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

First Quarter Monitoring Report:	**1 May**
Second Quarter Monitoring Report:	**1 August**
Third Quarter Monitoring Report:	**1 November**
Fourth Quarter Monitoring Report:	**1 February**

A transmittal letter shall accompany each monitoring report. The transmittal letter shall discuss any violations that occurred during the reporting period and all actions taken or planned for correcting violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions or a time schedule for implementing the corrective actions, reference to the previous correspondence is satisfactory.

The following information is to be included on all monitoring and annual reports, as well as report transmittal letters, submitted to the Central Valley Water Board:

Discharger Name
Facility Name
MRP Number
Contact Information (telephone number and email)

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly, whether the Discharger complies with waste discharge requirements.

In addition to the details specified in Standard Provision C.3, monitoring information shall include the method detection limit (MDL) and the reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

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

All monitoring reports shall comply with the signatory requirements in Standard Provision B.3. Monitoring data or discussions submitted concerning WWTF performance must also be signed and certified by the chief plant operator. If the chief plant operator is not in direct line of supervision of the laboratory function for a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

All monitoring reports that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1.

At any time henceforth, the State or Central Valley Water Board may notify the Discharger to electronically submit monitoring reports using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html) or similar system. Until such notification is given, the Discharger shall submit hard copy monitoring reports.

A. All Quarterly Monitoring Reports shall include the following:

Wastewater Reporting

1. The results of Influent, Effluent, and Pond Monitoring specified on page 2 and 3.

2. For each month of the quarter, calculation of the maximum daily flow and the monthly average flow.

3. For each of the quarters, calculation of the 12-month rolling average EC of the discharge using the EC value for that month averaged with EC values for the previous 11 months.

4. For each month of the quarter, calculation of the monthly average effluent BOD_5 and TSS concentrations, and calculation of the percent removal of BOD_5 and TSS compared to the influent.

5. A summary of the notations made in the pond monitoring log during each quarter. Copies of log pages covering the quarterly reporting period shall not be submitted unless requested by Central Valley Water Board staff.

Source Water Reporting

1. The results of Source Water Monitoring specified on page 4.

2. For each month of the quarter, calculation of the flow-weighted 12-month rolling average EC of the source water using monthly flow data and the source water EC values for the most recent four quarters.

B. Fourth Quarter Monitoring Reports, in addition to the above, shall include the following:

Wastewater Treatment Facility Information

1. The names, certificate grades, and general responsibilities of all persons in charge of wastewater treatment and disposal.

2. The names and telephone numbers of persons to contact regarding the WWTF for emergency and routine situations.

3. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations (Standard Provision C.4).

4. A statement whether the current operation and maintenance manual, sampling plan, and contingency plan, reflect the WWTF as currently constructed and operated, and the dates when these documents were last reviewed for adequacy.

5. The results of an annual evaluation conducted pursuant to Standard Provision E.4 and a figure depicting monthly average discharge flow for the previous five calendar years.

6. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with this Order.

Source Water Reporting

1. Include the results of monitoring specified on page 4.

Sludge/Biosolids Monitoring

1. Annual production totals in dry tons or cubic yards.

2. A description of disposal methods, including the following information related to the disposal methods used. If more than one method is used, include the percentage disposed of by each method.

    a. For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.

    b. For land application, include: the location of the site, and the Order number of any WDRs that regulate it.

    c. For incineration, include: the name and location of the site where incineration occurs, the Order number of WDRs that regulate the site, the disposal method of ash, and the name and location of the facility receiving ash (if applicable).

    d. For composting, include: the location of the site, and the Order number of any WDRs that regulate it.

3. Include the results of monitoring specified on page 4.

Use Area Reporting

1. The type of crop(s) grown in Use Area, and the quantified hydraulic and nitrogen loading rates in accordance with Table 2.

2. A summary of the notations made in the Use Area monitoring log during each quarter. The entire contents of the log do not need to be submitted.

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

Original signed by:

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

31 May 2013

_____
(Date)

GLOSSARY

BOD_5	Five-day biochemical oxygen demand
CBOD	Carbonaceous BOD
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
NTU	Nephelometric turbidity unit
TKN	Total Kjeldahl nitrogen
TDS	Total dissolved solids
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-Hour Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots.
Daily	Samples shall be collected at least every day.
Twice Weekly	Samples shall be collected at least twice per week on non-consecutive days.
Weekly	Samples shall be collected at least once per week.
Twice Monthly	Samples shall be collected at least twice per month during non-consecutive weeks.
Monthly	Samples shall be collected at least once per month.
Bimonthly	Samples shall be collected at least once every two months (i.e., six times per year) during non-consecutive months.
Quarterly	Samples shall be collected at least once per calendar quarter. Unless otherwise specified or approved, samples shall be collected in January, April, July, and October.
Semiannually	Samples shall be collected at least once every six months (i.e., two times per year). Unless otherwise specified or approved, samples shall be collected in April and October.
Annually	Samples shall be collected at least once per year. Unless otherwise specified or approved, samples shall be collected in October.
mg/L	Milligrams per liter
mL/L	milliliters [of solids] per liter
ug/L	Micrograms per liter
umhos/cm	Micromhos per centimeter
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
General Minerals	Analysis for General Minerals shall include at least the following:

Alkalinity	Chloride	Sodium
Bicarbonate	Hardness	Sulfate
Calcium	Magnesium	TDS
Carbonate	Potassium	Nitrate

General Minerals analyses shall be accompanied by documentation of cation/anion balance.

Table 1. Priority Pollutant Scan

Inorganics[1]	***Organics***	3-Methyl-4-Chlorophenol	Hexachlorobenzene
Antimony	Acrolein	Pentachlorophenol	Hexachlorobutadiene
Arsenic	Acrylonitrile	Phenol	Hexachlorocyclopentadiene
Beryllium	Benzene	2,4,6-Trichlorophenol	Hexachloroethane
Cadmium	Bromoform	Acenaphthene	Indeno(1,2,3-c,d)pyrene
Chromium (III)	Carbon tetrachloride	Acenaphthylene	Isophorone
Chromium (VI)	Chlorobenzene	Anthracene	Naphthalene
Copper	Chlorodibromomethane	Benzidine	Nitrobenzene
Lead	Chloroethane	Benzo(a)Anthracene	N-Nitrosodimethylamine
Mercury	2-Chloroethylvinyl Ether	Benzo(a)pyrene	N-Nitrosodi-n-Propylamine
Nickel	Chloroform	Benzo(b)fluoranthene	N-Nitrosodiphenylamine
Selenium	Dichlorobromomethane	Benzo(g,h,i)perylene	Phenanthrene
Silver	1,1-Dichloroethane	Benzo(k)fluoranthene	Pyrene
Thallium	1,2-Dichloroethane	Bis(2-chloroethoxy) methane	1,2,4-Trichlorobenzene
Zinc	1,1-Dichloroethylene	Bis(2-chloroethyl) ether	
Cyanide	1,2-Dichloropropane	Bis(2-chloroisopropyl) ether	***Pesticides***
Asbestos	1,3-Dichloropropylene	Bis(2-Ethylhexyl)phthalate	Aldrin
	Ethylbenzene	4-Bromophenyl phenyl ether	alpha-BHC
Dioxin Congeners	Methyl Bromide	Butylbenzyl Phthalate	beta-BHC
2,3,7,8-TCDD	Methyl Chloride	2-Chloronaphthalene	gamma-BHC (Lindane)
1,2,3,7,8-PentaCDD	Methylene Chloride	4-Chlorophenyl Phenyl Ether	delta-BHC
1,2,3,4,7,8-HexaCDD	1,1,2,2-Tetrachloroethane	Chrysene	Chlordane
1,2,3,6,7,8-HexaCDD	Tetrachloroethylene (PCE)	Dibenzo(a,h)Anthracene	4,4'-DDT
1,2,3,7,8,9-HexaCDD	Toluene	1,2-Dichlorobenzene	4,4'-DDE
1,2,3,4,6,7,8-HeptaCDD	1,2-Trans-Dichloroethylene	1,3-Dichlorobenzene	4,4'-DDD
OctaCDD	1,1,1-Trichloroethane	1,4-Dichlorobenzene	Dieldrin
2,3,7,8-TetraCDF	1,1,2-Trichloroethane	3,3'-Dichlorobenzidine	alpha-Endosulfan
1,2,3,7,8-PentaCDF	Trichloroethylene (TCE)	Diethyl phthalate	beta-Endosulfan
2,3,4,7,8-PentaCDF	Vinyl chloride	Dimethyl phthalate	Endosulfan Sulfate
1,2,3,4,7,8-HexaCDF	2-Chlorophenol	Di-n-Butyl Phthalate	Endrin
1,2,3,6,7,8-HexaCDF	2,4-Dichlorophenol	2,4-Dinitrotoluene	Endrin Aldehyde
1,2,3,7,8,9-HexaCDF	2,4-Dimethylphenol	2,6-Dinitrotoluene	Heptachlor
2,3,4,6,7,8-HexaCDF	2-Methyl-4,6-Dinitrophenol	Di-n-Octyl Phthalate	Heptachlor epoxide
1,2,3,4,6,7,8-HeptaCDF	2,4-Dinitrophenol	1,2-Diphenylhydrazine	Polychlorinated biphenyls
1,2,3,4,7,8,9-HeptaCDF	2-Nitrophenol	Fluoranthene	Toxaphene
OctaCDF	4-Nitrophenol	Fluorene	

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

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

Table 2. Use Area Monitoring

					Recycled Water Monitoring Data For Year: _____					
					Parcel No. _____ of _____ acres					
		Water Application				Water Quality		Nitrogen Application		
		Water required	Effluent used	Other water used	Total irrigation water	Other Water BOD	Other Water TN	As fertilizer	As effluent*	Total nitrogen applied
Month	Crop	(AF)	(AF)	(AF)	(AF)	(mg/L)	(mg/L)	(lbs/acre)	(lbs/acre)	(lbs/acre)
October										
November										
December										
Subtotal:										
January										
February										
March										
Subtotal:										
April										
May										
June										
Subtotal:										
July										
August										
September										
Subtotal:										
Annual Total:										
* calculated as (AF effluent/acre) x (2.72) x (X mg/l total nitrogen) = lbs nitrogen/acre										

INFORMATION SHEET

INFORMATION SHEET-ORDER R5-2013-0062
MARIPOSA COUNTY
DON PEDRO SEWER ZONE 1
WASTEWATER TREATMENT FACILITY
MARIPOSA COUNTY

Background

Waste Discharge Requirements (WDRs) Order 94-281 and Water Reclamation Requirements (WRRs) 94-278 regulate the discharge of secondary disinfected wastewater from the former Don Pedro Sewer Zone 1 wastewater treatment facility (WWTF) to the Lake Don Pedro Golf Club. The former WWTF was owned and operated by Mariposa County. The gold course was owned and operated by Mr. Frank Leonardi. Mariposa County determined the time and duration of the irrigation.

The former WWTF was in poor condition and did not have proper treatment and disposal capacity resulting in numerous violations of the requirements in WDRs 94-281. Cease and Desist Order (CDO) 94-282 was adopted by the Central Valley Water Board, requiring Mariposa County to implement interim and long term measures to achieve compliance with WDRs 94-278.

Mariposa County proposed to construct a new WWTF to comply with CDO 94-282, but did not have the funds and land necessary to move forward with the proposed plan. In September 1996, Mariposa County requested that the time schedule in the CDO be extended to allow for additional time to acquire the land needed and secure funding for the construction of the new WWTF.

On 24 January 1997, the Central Valley Water Board adopted Special Order 97-017, to provide additional time to comply with the CDO.

Mariposa County diligently worked on complying with the CDO. In February 1998, Mariposa County submitted documentation showing it had acquired 40 acres (APN 001-260-16) of land. In June 1004, Mariposa County purchased an additional 40 acres (APN 001-260-15) adjacent to the previously purchased area. In January 2005, Mariposa County submitted a Report of Waste Discharger for the new WWTF, a recycled water project, and an increase in wastewater flows followed by various submittals to provide additional information needed to draft WDRs.

By letter dated 28 July 2006, the Central Valley Water Board informed Mariposa County that the RWD appeared to be complete and provided sufficient technical information to draft tentative WDRs.

The new WWTF was constructed and went on line in early 2008. The new WWTF at 2267 Ranchito Drive, La Grange consists of a headworks, magnetic flow meter, extended aeration basin, clarifier, chlorine contact basin, lined storage pond, four concrete sludge drying beds with decanting structures, and 40 acres of Use Area.

Groundwater Conditions
The WWTF does not have a groundwater monitoring well network. Groundwater in the vicinity of the WWTF can be found at approximately 20 ft to 125 ft below ground surface (bgs) according to Well Completion Reports for wells 1,200 feet from the new WWTF.

The lithology, according to the Well Completion Reports, shows that there is approximately ten feet of top soil before encountering schist and slate bedrock. The direction of groundwater cannot be determined as it is affected by fractures, faults, joints, and intrusions in the bedrock.

Groundwater quality in the area is limited. Based on data from the Ranchito Well, owned and monitored by the Lake Don Pedro Community Services District, groundwater is of good quality. Groundwater EC ranges from 138 umhos/cm to 416 umhos/cm, TDS from 220 mg/L to 226 mg/L, nitrate as NO_3 from 3 mg/L to 4 mg/L, chloride from 2 mg/L to 6 mg/L, and sodium from 7 mg/L to 32 mg/L.

Basin Plan, Beneficial Uses, and Regulatory Considerations
The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition, revised October 2011* (Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the Basin, and incorporates, by reference, plans and policies adopted by the State Water Board. The beneficial uses of the underlying groundwater are municipal and domestic supply, agricultural supply, industrial service supply and industrial process supply.

Antidegradation
The Discharger provides treatment and control of the discharge that incorporates: secondary disinfected recycled water, lined storage pond and sludge drying beds, and low hydraulic and nutrient loading rates to the Use Area. Based on this, the proposed discharge is not expected to exceed water quality objectives nor impair beneficial uses.

CEQA
In February 2005, Mariposa County filed a Notice of Determination for the construction of a new WWTF design to handle up to 0.1 mgd and discharge to 46 acres.

Central Valley Water Board staff reviewed the Mitigated Negative Declaration and concurs that the project will be an improvement over the former discharge and will not have a significant impact on water quality. The mitigation measures are not related to water quality issues.

Title 27
Unless the Board finds that the discharge of designated waste is exempt from Title 27 of the California Code of Regulations, the release of designated waste is subject to full containment

requirements. Here, the discharge is exempt from the requirements of Title 27 pursuant to the sewage and wastewater exemptions found at Title 27, sections 20090 (b).

Proposed Order Terms and Conditions

Discharge Prohibitions, Specifications and Provisions

The proposed Order prohibits the discharge of waste to surface waters and to surface water drainage courses, and prohibits the cross connection between potable water and well piping with recycled water piping.

The proposed Order restricts the discharge to a monthly average dry flow limit of 0.08 mgd. This Order sets effluent limits for BOD_5 and TSS of 40 mg/L as monthly average and 80 mg/L as daily maximum.

The proposed Order's provisions regarding storage pond dissolved oxygen and freeboard are consistent with Central Valley Water Board policies for the prevention of nuisance conditions, and are applied to all similarly-situated facilities.

The proposed Order prescribes groundwater limitations that ensure the discharge does not affect present and anticipated beneficial uses of groundwater.

The proposed Order includes provisions that require the District to submit a Solids Management Plan and a letter describing how Mariposa County has met the provisions of DPH as required by 20 May 2005 DPH letter.

Monitoring Requirements

Section 13267 of the Water Code authorizes the Central Valley Water Board to require the District to submit monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State.

The proposed Order includes influent and effluent monitoring requirements, pond monitoring, source water monitoring, biosolids/sludge monitoring, and Use Area monitoring. This monitoring is necessary to characterize the discharge, evaluate compliance with effluent limitations prescribed by the Order, and evaluate groundwater quality and the extent of degradation, if any, caused by the discharge.

Reopener

The conditions of discharge in the proposed Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. It may be appropriate to reopen the Order if new technical information is received or if applicable laws and regulations change.