

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

WASTE DISCHARGE REQUIREMENTS ORDER R5-2017-0109
FOR
LONDON COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

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

Background

1. On 22 December 1999, London Community Services District (District or Discharger) submitted a Report of Waste Discharge (RWD) for the expansion of the wastewater treatment facility (WWTF) to include three aeration ponds and twelve evaporation/percolation ponds.
2. The Discharger owns and operates the WWTF and is responsible for compliance with these Waste Discharge Requirements (WDRs).
3. The WWTF is at the corner of Road 60 and Avenue 376, London, California (Section 12, Township 17 South, Range 23 East, MDB&M) and occupies assessor's parcel number (APN) 043-120-013-000.
4. WDRs Order 96-172, adopted by the Central Valley Water Board on 21 June 1996, prescribes requirements for a WWTF consisting of two aerated ponds and seven evaporation/percolation ponds, and about 13.1 acres of peach orchards immediately adjacent to the WWTF. WDRs Order 96-172 limits the flow to 0.3 million gallons per day (mgd).
5. In August 2000, the District expanded the WWTF to include a total of five aeration ponds and nine evaporation/percolation ponds in the area where the 13.1 acres of peach orchards were historically located. A Notice of Completion certifying the construction at the WWTF was submitted to the Central Valley Water Board. The Notice of Completion did not include technical information such as a water balance demonstrating the treatment and storage capacity of the WWTF.
6. WDRs Order 96-172 needs to be updated to ensure that the discharge is consistent with Central Valley Water Board plans and policies and prescribe requirements that reflect changes the Discharger has made to its WWTF. WDRs Order 96-172 will be rescinded and replaced with this Order.

Wastewater Treatment and Disposal

7. The District's WWTF accepts only domestic wastewater from the unincorporated community of London with no industrial contributions.
8. The 2000 WWTF expansion consisted of converting three evaporation/percolation ponds into aeration ponds for a total of five aeration ponds and constructing six new

evaporation/percolation ponds where the former 13.1 acres of peach orchards were located.

9. In February 2011, Central Valley Water Board staff inspected the WWTF. According to the District's consultant, aeration pond 2 was expanded into evaporation/percolation pond 2, changing the configuration of the ponds.
10. The WWTF now consists of a headworks, five aeration ponds (A1 through A5) and nine evaporation/percolation ponds (S1 through S9) with no reclamation. A site map of the WWTF and process flow schematic are shown on **Attachment A** and **Attachment B**, respectively, which are attached hereto and made part of this Order by reference.
11. The Discharger's Self-Monitoring Reports (SMRs) from January 2015 through December 2016 indicate that the flow rates range from 0.014 mgd (min) to 0.199 mgd (max).

Table 1. Monthly Average Wastewater Flows

Month	Units	2015			2016		
		Min	Max	Ave	Min	Max	Ave
January	mgd	0.130	0.150	0.140	0.130	0.159	0.142
February	mgd	0.125	0.157	0.138	0.121	0.154	0.136
March	mgd	0.117	0.146	0.131	0.122	0.150	0.135
April	mgd	0.120	0.146	0.131	0.127	0.149	0.135
May	mgd	0.129	0.155	0.136	0.122	0.144	0.133
June	mgd	0.137	0.163	0.144	0.124	0.149	0.138
July	mgd	0.092	0.199	0.141	0.135	0.154	0.142
August	mgd	0.129	0.199	0.146	0.132	0.152	0.143
September	mgd	0.141	0.171	0.151	0.132	0.153	0.143
October	mgd	0.135	0.164	0.150	0.130	0.151	0.139
November	mgd	0.137	0.160	0.148	0.014	0.155	0.134
December	mgd	0.105	0.158	0.144	0.121	0.145	0.132

12. Annual average wastewater effluent characteristics, based on data contained in the Discharger's SMRs from January 2015 through December 2016 are tabulated in Table 2.

Table 2. Annual Average Effluent Quality

Constituent/Parameter	Units	2015				2016			
		Min	Max	Ave	Sampling Events	Min	Max	Ave	Sampling Events
Biochemical Oxygen Demand (BOD)	mg/L	10	81	28	52	5	170	27	52
Total Suspended Solids (TSS)	mg/L	12	96	42	52	0.1	290	53	53
Settleable Solids	mL/L	0.1	0.4	0.1	52	0.1	0.7	0.1	54
pH	pH Units	7.8	10.2	---	47	7	10.3	---	54
Nitrates as N	mg/L	0.71	3.9	2.1	4	0.51	11	5.5	4
TKN	mg/L	2.2	5.6	3.8	3	2.1	4.2	3.3	4
Total Nitrogen	mg/L	4	15	7.5	4	4.1	16	9.2	4
Total Dissolved Solids (TDS)	mg/L	300	340	323	3	320	350	338	4
Electrical Conductivity (EC)	umhos/cm	422	1,295	832	11	437	1,617	699	12

13. In 2015, the District exceeded the effluent monthly average BOD and TSS limit of 40 mg/L, two out of twelve months and six out of twelve months, respectively. In 2016, the District exceeded the effluent monthly average BOD and TSS limit two out of twelve months and six out of twelve months, respectively. Based on recent SMR data from November 2016 through March 2017, it appears the District's effluent now meets the effluent monthly average BOD and TSS limit of 40 mg/L consistently, as shown in Table 3.

Table 3. Monthly Average Effluent BOD and TSS

Month	BOD mg/L	TSS mg/L
November 2016	20.8	28.6
December 2016	6.0	10.1
January 2017	15.3	15.9
February 2017	20.8	39.8
March 2017	23.0	34.6

14. On 31 May 2017, Central Valley Water Board staff conducted an inspection of the WWTF and collected an effluent sample after aeration pond 4 and before the evaporation/percolation ponds. The results of the effluent sample are shown in Table 4.

Table 4. Effluent Wastewater Sample

Constituent/Parameter	Units	DMS170531-1 Effluent Wastewater
Total Alkalinity as CaCO ₃	mg/L	160
Bicarbonate Alkalinity as HCO ₃	mg/L	190
Carbonate Alkalinity as CO ₃	mg/L	<1.0
Hydroxide Alkalinity as OH	mg/L	<1.0
Ammonia as Nitrogen	mg/L	<1.0
Biochemical Oxygen Demand	mg/L	14
Chloride	mg/L	52
Electrical Conductivity	umhos/cm	590
Nitrate as Nitrogen	mg/L	2.7
Nitrite as Nitrogen	mg/L	0.91
Orthophosphate as P	mg/L	1.7
Sulfate as SO ₄	mg/L	41
Total Dissolved Solids	mg/L	340
Total Kjeldahl Nitrogen	mg/L	4.1
Total Nitrogen	mg/L	7.7
Total Suspended Solids	mg/L	33
<u>Metals:</u>		
Boron	mg/L	0.1
Cadmium	mg/L	31
Hardness	meq CaCO ₃ /L	120
Iron	mg/L	<0.10
Magnesium	mg/L	11
Manganese	mg/L	0.01
Potassium	mg/L	10
Sodium	mg/L	74

15. As described in Findings 8 through 10, the District has changed the configuration of the WWTF significantly since the adoption of WDRs 96-172 by adding and reshaping ponds. There is insufficient information to determine the treatment and storage capacity of the WWTF. Wastewater flows at the WWTF are below the permitted monthly average flow of 0.3 mgd, ranging from a minimum of 0.014 to a maximum of 0.199 mgd according to data in the 2015 and 2016 SMRs.
16. On 19 June 2017, Keller/Wegley Engineering on behalf of the District submitted a water balance signed and stamped by a registered engineer. The water balance was submitted to demonstrate the treatment and storage capacity of the WWTF based on a current configuration of five aeration ponds and nine evaporation/percolation ponds.

17. In November 2011, the District discovered an abandoned well below evaporation/percolation pond 9 (Well A) after approximately 500,000 gallons of treated undisinfected secondary wastewater in evaporation/percolation pond 9 drained down abandoned Well A. Further investigations by the District revealed additional abandoned wells (Well B and Well C) below evaporation/percolation pond 9. Well B appears to have been properly abandoned on 8 February 2000 according to Tulare County Environmental Health records. Well C was discovered from reviewing well reports from the Department of Water Resources (DWR). At this time, no additional information is known about Well C.
18. The District has taken evaporation/percolation pond 9 out of service with the valves closed until the District is able to properly destroy the abandon wells. During the 31 May 2017 Central Valley Water Board staff inspection of the WWTF, the Chief Plant Operator confirmed to Central Valley Water Board staff that the valves to evaporation/percolation pond 9 were closed and that for added protection to prevent treated wastewater from entering evaporation/percolation pond 9, no wastewater was being stored in adjacent evaporation/percolation ponds 4 and 8. Additionally, the valves to evaporation/percolation ponds 4 and 8 were closed.
19. The District was working with Tulare County to secure funding to properly destroy the abandoned wells; however, the District did not secure funding through Tulare County because it did not meet the criteria to be eligible for funds.
20. The District is a severely disadvantaged community with a median household income of approximately \$24,491, according to the United States Census Bureau. Provision G.17 of this Order includes a 3 year time schedule for the District to destroy abandoned wells, Well A and Well C.
21. Screenings removed at the headworks are deposited into a bin and hauled to a properly permitted landfill. Sludge removed from dredging the aeration ponds is dried and hauled off-site by Jim Brisco Enterprises, Inc., to Eddie Silva Farms in El Nido. Merced County Division of Environmental Health permits the land application of biosolids within the County. Jim Brisco Enterprises, Inc., is a permitted sludge applicator that has a Biosolids Management Plan approved by Merced County.

Site-Specific Conditions

22. The District obtains its source water from four supply wells (Wells 2 through 5). Well 5 was recently drilled. Wells 2 and 4 are used most often, and Well 3 is used only when needed. The quality of source water (SW), based is shown below.

Table 5. Source Water Quality

Date Sampled	Well	EC umhos/cm	TDS mg/L	Date Sampled	Well	EC umhos/cm	TDS mg/L
1/7/2015	Well 2A	621	260	1/6/2016	Well 2A	430	240
	Well 4	630	260		Well 3	412	210
	Straight Average	626	260		Well 4	410	210
	SW + 300	926	---	Straight Average		417	220
	SW + 500	1126	---	SW + 300		717	---
				SW + 500		917	---

23. According to the Federal Emergency Management Agency (FEMA) maps (Map Numbers 06107C0605E and 06107C0610E), the WWTF is in Zone X. Areas in Zone X are outside of the 1 percent annual chance of flood with average depths less than one foot.
24. The soil below the WWTF is Calgro-Calgro, according to the Web Soil Survey published by the United States Department of Agriculture, Natural Resources Conservation Service. Calgro-Calgro has an irrigated land capability classifications of 3s. Soils with "Class 3" have severe limitations that restrict the choice of plants or require special conservation practices, or both. The subclass "s" shows that the soil has limitations within the root zone, such as shallowness of the root zone, a high content of stones, a low available water capacity, low fertility, and excessive salinity or sodicity. Overcoming these limitations is difficult.
25. The WWTF is in an arid climate characterized by dry summers and mild winters. The rainy season generally extends from October through April. The average annual precipitation in the area is about 10.15 inches, according to the Western Regional Climate Center. Average annual pan evaporation in the discharge area is about 66 inches, according to data in the *National Oceanic and Atmospheric Administration Technical Report NWS 34, Mean Monthly, Seasonal, and Annual Pan Evaporation for the United States*, published by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration.
26. Land uses in the vicinity of the WWTF are primarily agricultural. Primary crops grown in the area include peaches, nectarines, plums, and oranges, according to DWR land use data published in 2007.

Basin Plan, Beneficial Uses, and Water Quality Objectives

27. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised July 2016* (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 Resources Control Board (State Water Board). In accordance with Water Code section 13263(a), these waste discharge requirements implement the Basin Plan.

28. The WWTF is in Detailed Analysis Unit (DAU) No. 239, within the Kings Basin hydrologic unit. The Basin Plan identifies the beneficial uses of groundwater in this DAU as municipal and domestic supply (MUN), agricultural supply (AGR), and industrial service supply (IND), and industrial process supply (PRO).
29. The WWTF is in the Alta Hydrologic Area (No. 551.60) of the South Valley Floor Hydrologic Unit, as depicted on hydrologic maps prepared by State Water Board. As indicated in the Basin Plan, the beneficial uses of the Valley Floor Waters are follows: agricultural supply (AGR), industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); and groundwater recharge (GWR).
30. The Basin Plan establishes narrative water quality objectives for chemical constituents, taste and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.
31. The Basin Plan's numeric water quality 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.
32. The Basin Plan's narrative water quality objective for chemical constituents, 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.
33. The narrative toxicity objective 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.
34. 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.
35. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as *Water Quality for Agriculture* by Ayers and Westcot and similar references indicate that yield reductions in nearly all crops are not evident when irrigation water has an EC less than 700 umhos/cm. There is, however, an eight- to ten-fold range in salt tolerance for agricultural crops and the appropriate salinity values to protect agriculture in the Central Valley are considered on a case-by-case basis. It is possible to achieve full yield potential with waters having EC up to 3,000 umhos/cm if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop.

36. The Basin Plan identifies the greatest long-term problem facing the entire Tulare Lake Basin as the increase in salinity in groundwater, which has accelerated due to the intensive use of soil and water resources by irrigated agriculture. The Basin Plan recognizes that degradation is unavoidable until there is a long-term solution to the salt imbalance. Until then, the Basin Plan establishes several salt management requirements, including:
- a. The maximum EC in the discharge shall not exceed the EC of the source water plus 500 umhos/cm. When the source water is from more than one source, the EC shall be a weighted average of all sources.
 - b. Discharges to areas that may recharge to good quality groundwater, shall not exceed an EC of 1,000 umhos/cm, a chloride of 175 mg/L, or a boron content of 1.0 mg/L.

Groundwater Considerations

37. WDRs 96-172 did not require the District to install groundwater monitoring wells at the WWTF. The Discharger does not have a groundwater monitoring well network at the WWTF.
38. The Corcoran clay layer is not found below the WWTF in section 12 of Township 17 South, Range 23 East, MDB&M according to the *Depth to Top of Corcoran Clay* map published by the Department of Water Resources in 1981.
39. Groundwater is found at approximately 70 feet below ground surface and flows in the southeast direction according to *Lines of Equal Depth to Water in Wells Unconfined Aquifer* map and *Lines of Equal Elevation of Water in Wells Unconfined Aquifer* map published by the Department of Water Resources in Spring 2010, respectively.
40. Groundwater quality below the WWTF based on two nearby wells from data in the Department of Water Resources, Water Data Library is shown below. The depth and screen intervals of the wells are unknown.

Table 6. Groundwater Quality from Nearby Wells

Constituent/Parameter	Units	17S23E02R001M	17S23E01D002M
		2/12/1957	10/7/1963
Total Alkalinity	mg/L	144	249
Boron	mg/L	0.09	0.1
Calcium	mg/L	38	76
Chloride	mg/L	36	82
Electrical Conductivity	umhos/cm	438	857
Fluoride	mg/L	0.1	---
Total Hardness	mg/L	145	292
Magnesium	mg/L	12	25
Nitrate	mg/L	15	---
Potassium	mg/L	1.7	2.4
Silica	mg/L	52	---
Sodium	mg/L	32	65
Sulfate	mg/L	6.7	18
pH	pH Units	7.4	7.6

41. The Basin Plan requires that each RWD for a land disposal operation justify why reclamation is not practiced or proposed. This requirement has not been fulfilled, the requirement is addressed by Provision G.18 of this Order.

Special Considerations for Salt and Nitrate Discharges

42. The Central Valley Water Board is developing amendments to the Basin Plan to incorporate new strategies for addressing ongoing salt and nitrate accumulation in the waters and soils of the Central Valley. Strategies currently under consideration may:
- a. Alter the way the Board calculates available assimilative capacity for nitrate, which could result in new or modified requirements for nitrate management;
 - b. Require dischargers to implement actions identified under an interim salinity permitting approach; and/or
 - c. Establish alternate compliance approaches that would allow dischargers to participate in efforts to provide drinking water to local communities in consideration for longer compliance time schedules.

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

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

Antidegradation Analysis

44. The *Statement of Policy with Respect to Maintaining High Quality of Waters in California*, State Water Board Order WQ 68-16 (Antidegradation Policy) was adopted by the State Water Board in October 1968. Antidegradation Policy limits the Board's discretion to authorize the degradation of "high-quality waters." This policy has been incorporated into the Board's Basin Plans. "High-quality waters" are defined as those waters where water quality is more than sufficient to support beneficial uses designated in the Board's Basin Plan. Whether or not a water is a high-quality water is established on a constituent-by-constituent basis, which means that an aquifer can be considered a high-quality water with respect to one constituent, but not for others. (State Water Board Order No. WQ 91-10.)
45. Antidegradation Policy applies when an activity discharges to high quality waters and will result in some degradation of such high quality waters. When it applies, the Policy requires that WDRs reflect best practicable treatment or control (BPTC) of wastes and that any degradation of high quality waters (a) will be consistent with the maximum benefit to the people of the State, and (b) will not result in an exceedance of water quality objectives. If the activity will not result in the degradation of high quality waters, Anti-Degradation Policy does not apply, and the Discharger need only demonstrate that it will use "best efforts" to control the discharge of waste.
46. Constituents of concern in the discharge that have the potential to degrade groundwater include organics, nutrients, and salts. This Order establishes terms and conditions of discharge to ensure that the discharge does not unreasonably affect present and anticipated uses of groundwater and includes groundwater limitations that apply water quality objectives established in the Basin Plan to protect beneficial uses.
 - a. For salinity, the Basin Plan contains effluent limits of EC of source water plus 500 umhos/cm and 1,000 umhos/cm maximum for discharges to areas that may recharge to good quality groundwater. With the 2015 annual straight average source water EC of 626 umhos/cm, the 2015 annual average discharge EC of 832 umhos/cm meets the source water plus 500 umhos/cm (1126 umhos/cm) limit. With the 2016 annual straight average source water EC of 417 umhos/cm, the 2016 annual average discharge EC of 699 umhos/cm meets the source water plus 500 umhos/cm (917 umhos/cm) limit. The EC of the discharge is also less than the Basin Plan cap of 1,000 umhos/cm.
 - b. For nitrogen, the WWTF generates effluent total nitrogen ranging from 4 to 16 mg/L, based on a total of eight sampling events over two years. This Order includes a more robust monitoring schedule for nitrogen. Additionally, this Order requires the Discharger to conduct a recycle water feasibility study to reclaim treated effluent.

Based on this, the discharge is not expected to cause exceedances of water quality objectives nor impair beneficial uses for nitrogen.
47. The WWTF described in Findings 7 through 21, will provide treatment and control of the discharge that incorporates:
 - a. Secondary treatment of wastewater;

- b. Certified operators to ensure proper operation and maintenance; and
- c. Source water and discharge monitoring.

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

- 48. 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, and treatment is consistent with maximum benefit to the people of the state. The degradation will not unreasonably affect present and anticipated beneficial uses of groundwater or result in water quality less than water quality objectives.
- 49. Furthermore, this Order requires that the Discharger explore ways to recycle the wastewater that it currently discharges to evaporation/percolation ponds, and to investigate the feasibility of local recycled water projects.
- 50. 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

- 51. 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 uses.
- 52. 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."
- 53. California Code of Regulations, Title 27 (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 domestic sewage, wastewater, and reuse. Title 27, section 20090, states in part:

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

(a) Sewage – Discharges of domestic sewage or treated effluent which are regulated by WDRs issued pursuant to Chapter 9, Division 3, Title 23 of this code, or for which WDRs have been waived, and which are consistent with applicable water quality objectives, and treatment or storage facilities associated with municipal wastewater treatment plants, provided that residual sludges or solid waste from wastewater treatment facilities shall be discharged only in accordance with the applicable SWRCB-promulgated provisions of this division.

(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.

(h) Reuse – Recycling or other use of materials salvage from waste, or produced by waste treatment, such as scrap metal, compost, and recycled chemicals, provided that discharges of residual wastes from recycling or treatment operations to land shall be according to applicable provisions of this division.

54. The discharge authorized herein (except for the discharge or residual sludge and solid waste), and the treatment and storage facilities associated with the discharge, are exempt from the requirements of Title 27 as follows:
- a. The aeration ponds are exempt pursuant to Title 27, section 20090(a) because they are treatment and storage facilities associated with a municipal domestic wastewater treatment plant.
 - b. Evaporation/percolation ponds S1 through S9 are exempt pursuant to Title 27, section 20090(b) because they are wastewater storage ponds and:
 - i. The Central Valley Water Board is issuing WDRs;

- ii. The discharge is in compliance with the Basin Plan; and
 - iii. The treated effluent discharged to the evaporation/percolation ponds does not need to be managed as hazardous waste.
55. 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 1 July 2015. Order 2014-0057-DWQ requires all applicable industrial dischargers to apply for coverage under the new General Order by the effective date. Storm water generated by this facility does not discharge to waters of the U.S. Therefore, coverage under Order 2014-0057-DWQ is not required at this time.
56. On 2 May 2006, the State Water Board adopted a General Sanitary Sewer System Order (State Water 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 one mile in length. The Discharger has applied for, and is enrolled under the General Order.
57. Water Code section 13267(b) states that:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging ...shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.
58. The technical reports required by this Order and monitoring reports required by the attached MRP R5-2017-0109 are necessary to ensure compliance with these waste discharge requirements. The Discharger owns and operates the wastewater treatment facility that discharges the waste subject to this Order.
59. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (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.
60. The District, as the lead agency under the California Environmental Quality Act (CEQA) for a project to convert one evaporation/percolation pond to an additional aeration pond and

construct six evaporation/percolation ponds at the WWTF, to approve a Mitigated Negative Declaration subsequently filed a Notice of Determination (SCH# 1998022005) on 15 April 1998. Mitigation measures were not related to water quality issues.

61. 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.
62. The Central Valley Water Board is using the standards in 40 CFR as guidelines in establishing this Order, but the Central Valley Water Board is not the implementing authority for the 40 CFR 503 regulations. The Discharger may have separate and/or additional compliance, reporting, and permitting responsibilities to EPA.
63. 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

64. 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.
65. 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 recommendations and an opportunity for a public hearing.
66. All comments pertaining to the discharge were heard and considered in a public hearing.

IT IS HEREBY ORDERED that Waste Discharge Requirements Order 96-172 is rescinded and that London Community Services District, 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 waste classified as 'hazardous', as defined in California Code of Regulations, title 22, section 6626.1 et seq., is prohibited.
3. Bypass or overflow of untreated or partially treated wastes is prohibited, except as allowed by Standard Provisions E.2 of the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991.
4. Discharge of wastewater in a manner or location other than that described herein or in the RWD and its amendments is prohibited.

5. Discharge of toxic substances into the wastewater treatment system or evaporation/percolation ponds such that biological treatment mechanisms are disrupted is prohibited.

B. Flow Limitations [Compliance shall be determined at INF-001¹]

1. The monthly average dry weather flow shall not exceed 0.30 mgd.

C. Effluent Limitations

1. Effluent shall not exceed the following limitations. **[Compliance shall be determined at EFF-001¹]**

a)

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
BOD ₅ ¹	mg/L	40	80
TSS ²	mg/L	40	80
Settleable Solids	mL/L	0.2	0.5

¹ Five-day biochemical oxygen demand at 20°C.

² Total suspended solids

- b) The 12-month rolling average EC of the discharge shall not exceed the 12-month rolling average EC of the source water plus 500 µmhos/cm or 1,000 umhos/cm, whichever is less. Compliance with this effluent limitation shall be determined monthly.

D. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will cause 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, storage ponds, and land application areas 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 at the WWTF shall be precluded through such means as fences, signs, or acceptable alternatives.

¹ Monitoring location INF-001 and EFF-001 are described in Monitoring and Reporting Program R5-2017-0109

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 treatment pond or storage 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.
9. 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 a permanent staff gauge with calibration marks that clearly show the water level at the design capacity and enable determination of available operational freeboard.
10. 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 winter while ensuring 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 Discharge Specifications D.9 and D.10.
12. 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, 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. Wastewater contained in an unlined pond shall not have a pH less than 6.0 or greater than 9.0.
15. The Discharger shall periodically monitor sludge accumulation in the wastewater treatment/storage ponds at least every five years beginning in 2017, and shall periodically remove sludge as necessary to maintain adequate treatment and storage capacity. Specifically, if the estimated volume of the sludge in the ponds exceeds twenty five percent of the permitted reservoir capacity, the Discharger shall complete sludge cleanout within 12 months after the date of the estimate.

E. 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 Nitrogen of 10 mg/L.
 - (ii) Total Coliform Organisms of 2.2 MPN/100 mL.
 - (iii) For constituents identified in Title 22, the primary and secondary MCLs quantified therein.
 - b. Containing taste or odor-producing constituents, toxic substances, or any other constituent in concentrations that cause nuisance or adversely affect beneficial uses.

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, ponds, and clarifiers, etc., as needed to ensure optimal plant operation.
2. Any handling and storage of residual sludge, solid waste, and biosolids at 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, division 2. Removal for further treatment, disposal, or reuse at disposal 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 except in cases where a local (e.g., county) program has been authorized by a regional water board. In most cases, this means the General Biosolids Order (State Water Board Water Quality Order No. 2004-0012-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 covered by Order 2004-0012-DWQ, the Discharger must file a complete Notice of Intent and receive a Notice of Applicability for each project.
5. Use and disposal of biosolids shall comply with the self-implementing federal regulations of 40 Code of Federal Regulations part 503, which are subject to enforcement by the U.S. EPA, not the Central Valley Water Board. If during the life of this Order, the State accepts primacy for implementation of part 503, the Central Valley Water Board may also initiate enforcement where appropriate.
6. 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. Provisions

1. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991 (Standard Provisions), which are attached hereto and made part of this Order.
2. The Discharger shall comply with MRP R5-2017-0109, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer.
3. 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 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.
5. 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.

6. 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.
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 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 when the operation is necessary to achieve compliance with the conditions of this Order.
8. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.
9. The Discharger shall provide certified wastewater treatment plant operators in accordance with California Code of Regulations, Title 23, division 3, chapter 26.
10. 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."
11. 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 or 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 staff gauge with calibration marks that indicate the water level at the design capacity and enable determination of available operational freeboard.
12. 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 these provisions by the due dates specified.
13. 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.

14. 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 2008-0002-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.
15. In the event of any change in control or ownership of land or WWTF 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 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 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. The Discharger shall comply with the following time schedule to properly destroy the abandoned wells below evaporation/percolation pond 9.

<u>Task</u>		<u>Report Date</u>
a.	Submit a Work Plan for Executive Officer approval that describes the measures the District will implement to properly destroy abandoned Wells A and C below evaporation/percolation pond 9. The District shall coordinate with Tulare County Environmental Health Services and obtain appropriate well destruction permits. The destruction of wells shall comply with appropriate standards as described in California Well Standard	1 year following Order adoption.

<u>Task</u>		<u>Report Date</u>
	Bulletin 74-90 (June 1991) and Water Well Standards: State of California Bulletin 74-81 (December 1981), and any more stringent standards adopted by the State or County pursuant to Water Code section 13801.	
b.	Submit annual progress reports describing the District's progress towards securing funding for well destruction and time schedule for the destruction of the wells.	1st annual report is due 1 year from the completion of Task a and annually thereafter until Task c is completed.
c.	Complete the destruction of Wells A and C and submit a technical report signed by a registered professional that includes destruction details of the wells and certifies the wells were destroyed in accordance with applicable regulations.	3 years from the completion of Task a.

18. The Discharger shall conduct a study to evaluate the feasibility of implementing recycled water project.

<u>Task</u>		<u>Report Date</u>
a.	Submit a study demonstrating that the District has determined current land uses for each parcel within a one mile radius of the WWTF, identified potential uses of recycled water for each parcel, and appropriately informed land owners and formally requested their consideration of accepting WWTF effluent for a recycled water project. Notification of land owners must include pertinent effluent monitoring results and water quality goals for the recycled water uses identified.	5 years following Order adoption.
b.	If the District identifies a feasible recycled water project, submit a Report of Waste Discharge and arrange for preparation of a Title 22 Engineering Report in accordance with Title 22, section 60323, a copy of this report shall be provide to the State Water Board, Division of Drinking Water (DDW). This provision shall be considered satisfied upon submittal by the District of a complete Report of Waste Discharge and a letter from DDW determining the corresponding Title 22 Engineering Report is complete, or when the Executive Officer concludes that the District has provided sufficient justification for not using effluent for recycled water.	6 months from the completion of Task a.

	<u>Task</u>	<u>Report Date</u>
c.	If the District identifies a feasible recycled water project, submit a Wastewater and Nutrient Management Plan for the proposed land application area(s) that receive effluent from the WWTF for Executive Office approval. At a minimum the Plan must include procedures for monitoring the land application areas including daily records of wastewater application and acreages, and action plan to deal with objectionable odors and/or nuisance conditions, a discussion on blending of wastewater and supplemental irrigation water, supporting data and calculations for monthly and annual water and nutrient balances, and management practices that will ensure wastewater, irrigation water, commercial fertilizers and soil amendments are applied at agronomic rates.	1 month from the completion of Task b.

19. If the Central Valley Water Board determines that the discharge has a reasonable potential to cause or contribute to an exceedance of a water quality objective, or to create a condition of nuisance or pollution, this Order may be reopened for consideration of additional requirements.
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.

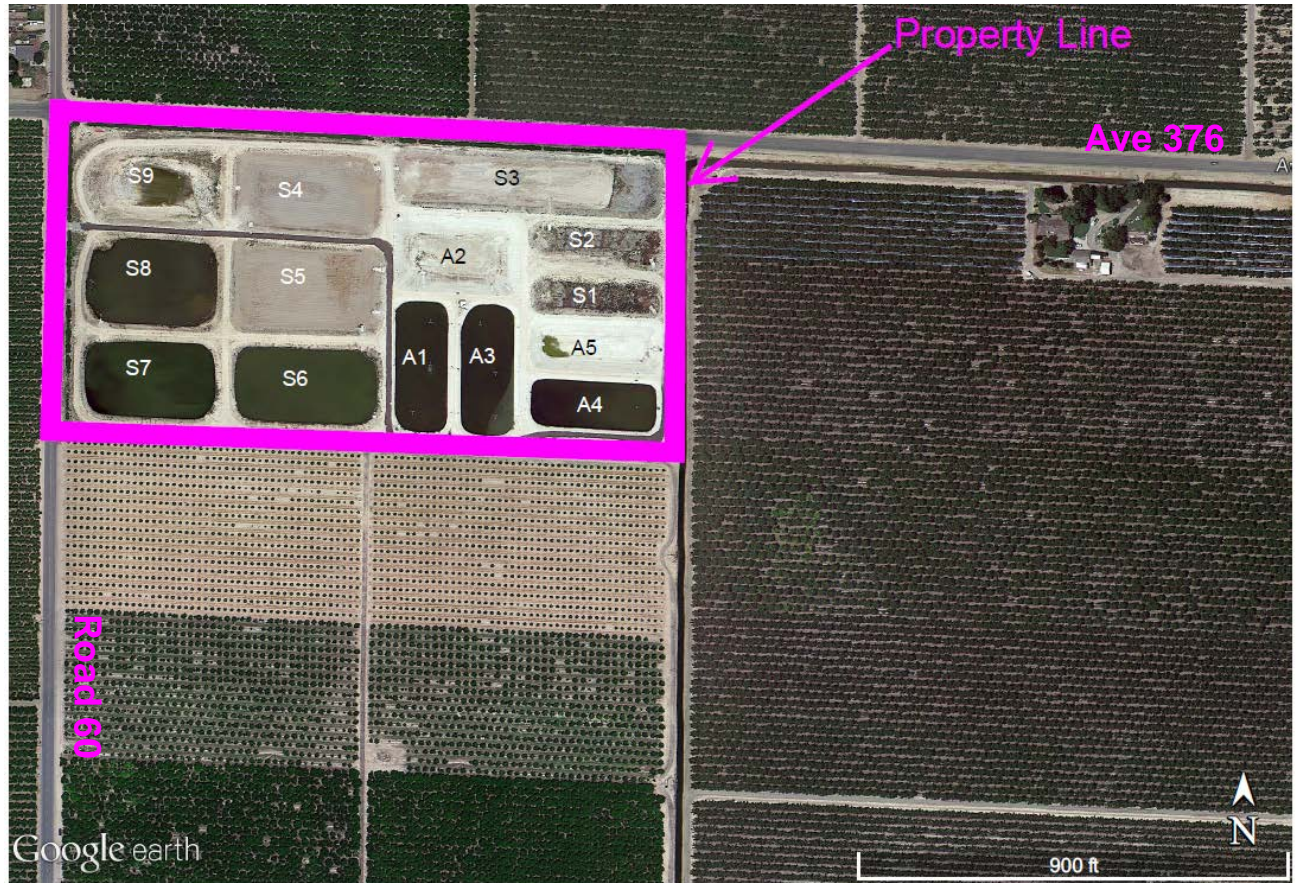
I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 20 October 2017.

Original Signed By

PAMELA C. CREEDON, Executive Officer

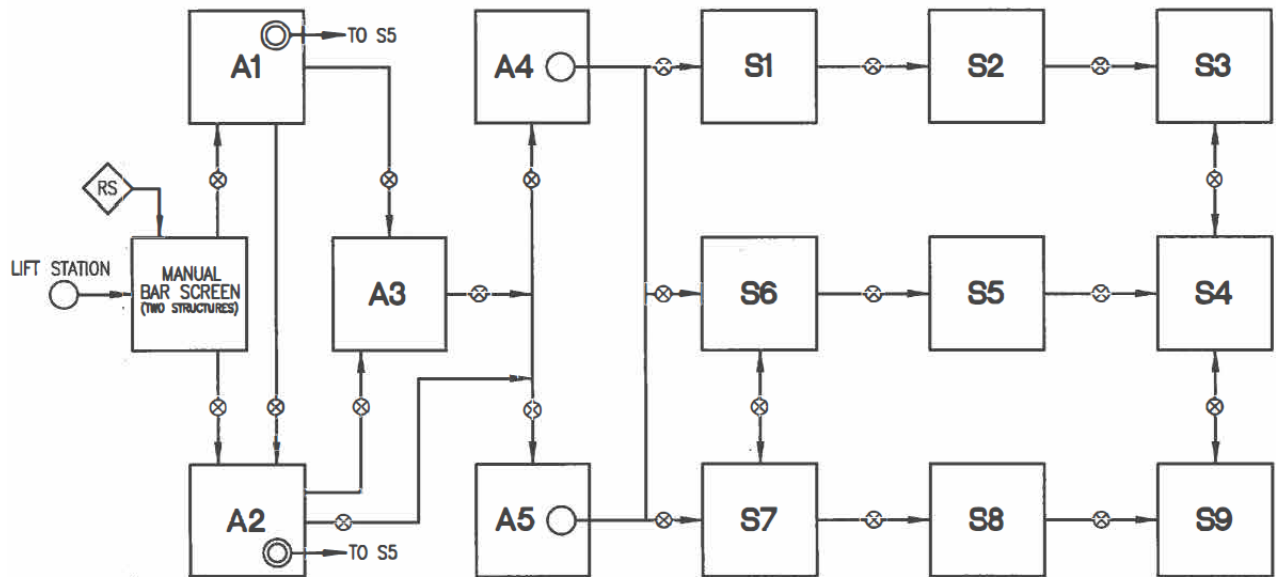
Order Attachments:

- A Site Map
 - B Process Flow Schematic
- Monitoring and Reporting Program R5-2017-0109
Information Sheet
Standard Provisions (1 March 1991)



SITE MAP
WASTE DISCHARGE REQUIREMENTS ORDER R5-2017-0109
FOR
LONDON COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

ATTACHMENT A



RS = Recirculation Pumping Plant

A1 = Aeration Pond 1
 A2 = Aeration Pond 2
 A3 = Aeration Pond 3
 A4 = Aeration Pond 4
 A5 = Aeration Pond 5

S1 = Evaporation/Percolation Pond 1
 S2 = Evaporation/Percolation Pond 2
 S3 = Evaporation/Percolation Pond 3
 S4 = Evaporation/Percolation Pond 4
 S5 = Evaporation/Percolation Pond 5
 S6 = Evaporation/Percolation Pond 6
 S7 = Evaporation/Percolation Pond 7
 S8 = Evaporation/Percolation Pond 8
 S9 = Evaporation/Percolation Pond 9

PROCESS FLOW SCHEMATIC

WASTE DISCHARGE REQUIREMENTS ORDER R5-2017-0109
 FOR
 LONDON COMMUNITY SERVICES DISTRICT
 WASTEWATER TREATMENT FACILITY
 TULARE COUNTY

ATTACHMENT B

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2017-0109
FOR
LONDON COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE 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, electrical conductivity, and dissolved oxygen) 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 State Water Resources Control Board (State Water Board), Division of Drinking Water 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 8](#).

MONITORING AND REPORTING PROGRAM ORDER R5-2017-0109
 LONDON COMMUNITY SERVICES DISTRICT
 WASTEWATER TREATMENT FACILITY
 TULARE COUNTY

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 wastewater treatment facility (WWTF) influent can be obtained prior to any additives, treatment processes, and WWTF return flow.
EFF-001	Location where a representative sample of the WWTF effluent can be obtained prior to discharge into the storage ponds.
APD-001 through APD-005	Aeration Ponds 1 through 5
EPD-001 through EPD-009	Evaporation/Percolation Ponds 1 through 9
SWS-001 through SWS-003	Source Water Supply Well 2A (SWS-001), Well 3 (SWS 002), Well 4 (SWS-003)
SLD-001	Location where a representative sample of the WWTF sludge/biosolids can be obtained.

INFLUENT MONITORING

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

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Flow	mgd	Meter
Weekly	pH	pH units	Grab
Weekly	Electrical Conductivity (EC)	umhos/cm	Grab
Weekly	Total Suspended Solids (TSS)	mg/L	Grab
Weekly	Biochemical Oxygen Demand ¹ (BOD ₅)	mg/L	Grab

¹ Five-day, 20°C biochemical oxygen demand (BOD)

EFFLUENT MONITORING

The Discharger shall monitor treated effluent at EFF-001. Effluent monitoring shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Weekly	pH	pH Units	Grab
Weekly	EC	umhos/cm	Grab
Weekly	TSS	mg/L	Grab
Weekly	Settleable Solids	mL/L	Grab
Weekly	BOD ₅ ¹	mg/L	Grab
Monthly	TDS	mg/L	Grab
Quarterly	Total Kjeldahl Nitrogen (TKN)	mg/L	Grab
Quarterly	Nitrate as Nitrogen (NO ₃ as N)	mg/L	Grab

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 TULARE COUNTY

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Quarterly	Nitrite as Nitrogen (NO ₂ as N)	mg/L	Grab
Quarterly	Ammonia as Nitrogen (NH ₃ as N)	mg/L	Grab
Quarterly	Total Nitrogen (TN)	mg/L	Computed
Annually	General Minerals ^{2,3}	mg/L	Grab

- ¹ Five-day, 20°C biochemical oxygen demand (BOD)
- ² With the exception of wastewater samples, samples for metal analysis 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.
- ³ See glossary on page 8 for list of general mineral constituents

POND MONITORING

A permanent marker (e.g., staff gages) shall be placed in the aeration and storage ponds. The marker shall have calibrations indicating water level at the design capacity and available operational freeboard. Aeration ponds APD-001 through APD-005 and effluent evaporation/percolation ponds PND-001 through PND-009 shall be monitoring to include at least the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Weekly	DO	mg/L	Grab ¹
Weekly	Freeboard	Feet ²	Observation

- ¹ 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.
- ² To the nearest tenth of a foot.

The Discharger shall inspect the condition of the storage ponds 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

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.

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Quarterly	Flow-Weighted EC	umhos/cm	Computed Average
Every 3 years	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

If used for land application, the Discharger shall sample sludge/biosolids for the following constituents:

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 constituents listed above shall be monitored prior to removal for disposal.

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.

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

MONITORING AND REPORTING PROGRAM ORDER R5-2017-0109
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WASTEWATER TREATMENT FACILITY
TULARE COUNTY

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

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

Program: Non-15, WDID: 5D540119001, Facility Name: London Community Services District WWTF, Order: R5-2017-0109

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, and 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.

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.

In the future, the State or Central Valley Water Board may notify the Discharger to electronically submit and upload monitoring reports using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site <http://www.waterboards.ca.gov/ciwqs/index.html> or similar system. Electronic submittal to CIWQS, when implemented, will meet the requirements of our Paperless Office System.

A. All Quarterly Monitoring Reports shall include the following:

Wastewater Reporting

1. The results of Influent, Effluent, and Pond Monitoring specified on page 2 through 3.
2. For each month of the quarter, calculation of the maximum daily flow and the monthly average flow.
3. For each month of the quarter, 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 BOD₅ and TSS concentrations, and calculation of the percent removal of BOD₅ 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).

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LONDON COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

- 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.

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.

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

20 October 2017

(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.

INFORMATION SHEET

INFORMATION SHEET ORDER R5-2017-0109
LONDON COMMUNITY SERVICES
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

Background

London Community Services District (District or Discharger) owns and operates the WWTF that provides sewerage services for the unincorporated community of London (population 1,869).

Waste Discharge Requirements (WDRs) Order 96-172, adopted 21 June 1996 prescribes requirements for the WWTF and allows a monthly average flow of 0.3 mgd to evaporation/percolation ponds and 13 acres of farmland.

On 22 December 1999, the District submitted a RWD for the expansion of the WWTF to include three aeration ponds and twelve evaporation/percolation ponds.

On 31 July 2000, the Central Valley Water Board requested a technical report certifying completion of the WWTF expansion.

On 7 November 2000, J. Patrick Sullivan, Attorney for the District submitted a letter and attached Notice of Completion, recorded on 2 November 2000 with the Tulare County Recorder. The Notice of Completion certified the construction at the WWTF was completed on 31 August 2000. The Notice of Completion did not include technical information such as a water balance demonstrating the WWTF treatment and storage capacity.

On 18 July 2003, a Regional Water Board staff inspection confirmed five aeration ponds and nine evaporation/percolation ponds were in place at the WWTF.

On 4 February 2011, Regional Water Board staff inspected the WWTF and according to the District's consultant, aeration pond 2 had been expanded into evaporation/percolation pond 2. This expansion changed the configuration of aeration pond 2 and evaporation/percolation pond 2. The WWTF consists of five aeration ponds and nine evaporation/percolation ponds.

Discharge

The WWTF now consists of a headworks, five aeration ponds (A1 through A5) and nine evaporation/percolation ponds (S1 through S9) with no reclamation.

The aeration ponds are operated in series. The WWTF has the flexibility of running one of two treatment trains at all times and can alternate between the two treatment trains for maintenance. One treatment train consists of aeration ponds 1, 3, and 4 while the second treatment train consists of aeration pond 2, 3, and 5. Typically, effluent samples are collected at the end of aeration pond 4 or 5 depending on which treatment train is running and before the wastewater goes into the evaporation/percolation ponds.

The District has not been able to secure funding for the destruction of the abandoned wells below evaporation/percolation pond 9. In the interim, the valves to evaporation/percolation pond 9 are closed and no wastewater is stored in the pond.

Groundwater Conditions

The WWTF does not have a groundwater monitoring well network at the WWTF. WDRs 96-172 did not require the District to install groundwater monitoring wells at the WWTF.

The Corcoran clay layer is not found below the WWTF in section 12 of Township 17 South, Range 23 East, MDB&M according to the *Depth to Top of Corcoran Clay* map published by the Department of Water Resources in 1981.

Groundwater in the area of the WWTF is found at approximately 70 feet below ground surface and flows in the southeast direction according to *Lines of Equal Depth to Water in Wells Unconfined Aquifer* map and *Lines of Equal Elevation of Water in Wells Unconfined Aquifer* map published by the Department of Water Resources Spring in 2010, respectively.

Basin Plan, Beneficial Uses, and Regulatory Considerations

The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised July 2016* (Basin Plan) designates beneficial uses, establishes narrative and numerical water quality objectives, contains implementation plans and policies for protecting waters of the Basin, and incorporates, by reference, plans and policies of the State Water Board.

The Basin Plan identifies the greatest long-term water quality problem facing the entire Tulare Lake Basin is increasing salinity in groundwater, a process accelerated due to the intensive use of soil and water resources by irrigated agriculture. The Basin Plan recognizes that degradation is unavoidable until there is a long-term solution to the salt imbalance. Until then, the Basin Plan establishes several salt management requirements, including the following limits:

- a. The maximum EC of the effluent discharged to land shall not exceed the EC of source water plus 500 umhos/cm. When the source water is from more than one source, the EC shall be a weighted average of all sources.
- b. Discharges to areas that may recharge to good quality groundwater shall not exceed an EC of 1,000 umhos/cm, a chloride content of 175 mg/L, or a boron content of 1.0 mg/L.

Discharge Prohibitions, Specifications and Provisions

The proposed Order prohibits the discharge of waste to surface waters and to surface water drainage courses.

The proposed Order restricts the discharge to a monthly average flow limit of 0.3 mgd. The Order sets effluent limits for BOD and TSS of 40 mg/L as a monthly average and 80 mg/L as a daily maximum. This Order also sets effluent limits for settleable solids of 0.2 mL/L as a monthly average and 0.5 mL/L as a daily maximum. For effluent EC, this Order prescribes a 12-month rolling average EC not to exceed the 12-month rolling average EC of the source water plus 500 umhos/cm or 1,000 umhos/cm, whichever is less.

The proposed Order's provisions regarding aeration and evaporation/percolation ponds dissolved oxygen and freeboard are consistent with Central Valley Water Board policies for the prevention of nuisance conditions, and are applied to all such 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 Discharger to submit a Work Plan for the destruction of abandoned wells Well A and Well C and potentially submit a Wastewater and Nutrient Management Plan.

Monitoring Requirements

Section 13267 of the Water Code authorizes the Central Valley Water Board to require the Discharger 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, and sludge/biosolids monitoring. This monitoring is necessary to characterize the discharge and evaluate compliance with effluent limitations prescribed by the Order.

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

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

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.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

STANDARD PROVISIONS AND REPORTING REQUIREMENTS
FOR
WASTE DISCHARGE REQUIREMENTS

1 March 1991

A. General Provisions:

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

Waste Discharge to Land

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

B. General Reporting Requirements:

1. In the event the discharger does not comply or will be unable to comply with any prohibition or limitation of this Order for any reason, the discharger shall notify the Board by telephone at **(916) 464-3291** [*Note: Current phone numbers for all three Regional Board offices may be found on the internet at http://www.swrcb.ca.gov/rwqcb5/contact_us.*] as soon as it or its agents

Waste Discharge to Land

have knowledge of such noncompliance or potential for noncompliance, and shall confirm this notification in writing within **two weeks**. The written notification shall state the nature, time and cause of noncompliance, and shall include a timetable for corrective actions.

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

This plan shall:

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

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

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

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

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

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

California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114

Note: Current addresses for all three Regional Board offices may be found on the internet at http://www.swrcb.ca.gov/rwqcb5/contact_us or the current address if the office relocates.

C. Provisions for Monitoring:

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

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

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

Waste Discharge to Land

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

Record of monitoring information shall include:

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

D. Standard Conditions for Facilities Subject to California Code of Regulations, Title 23, Division 3, Chapter 15 (Chapter 15)

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

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

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

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

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

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

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

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

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

4. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Board by **31 January**.
5. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to disposal. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
6. Definitions
 - a. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action.
 - b. The monthly average discharge is the total discharge by volume during a calendar month divided by the number of days in the month that the facility was discharging. This number is to be reported in gallons per day or million gallons per day.

Where less than daily sampling is required by this Order, the monthly average shall be determined by the summation of all the measured discharges by the number of days during the month when the measurements were made.
 - c. The monthly average concentration is the arithmetic mean of measurements made during the month.
 - d. The "daily maximum" **discharge** is the total discharge by volume during any day.

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

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

7. Annual Pretreatment Report Requirements:

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

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

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

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

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

Waste Discharge to Land

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

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

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

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

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

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

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

and

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

Revised January 2004 to update addresses and phone numbers