## CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD **CENTRAL VALLEY REGION**

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## WASTE DISCHARGE REQUIREMENTS ORDER R5-2022-0026



ORDER INFORMATION

Order Type(s):	Waste Discharge Requirements (WDRs)
Status:	Adopted
Program:	Non-15 Discharges to Land
Region 5 Office:	Fresno
Discharger(s):	City of Farmersville
Facility:	Farmersville Wastewater Treatment Facility
County:	Tulare County
Prior Order(s):	86-152, 84-128

#### **CERTIFICATION**

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 21 April 2022.

> PATRICK PULUPA, **Executive Officer**

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## GLOSSARY

Antidegradation Policy	Statement of Policy with Respect to Maintaining High Quality Waters in California, State Water Board Resolution 68-16
Basin Plan	Water Quality Control Plan for Tulare Lake Basin
bgs	Below Ground Surface
BOD <sub>[5]</sub>	[Five-Day] Biochemical Oxygen Demand at 20° Celsius
BPTC	Best Practicable Treatment and Control
CEQA	California Environmental Quality Act, Public Resources Code section 21000 et seq.
CEQA Guidelines	California Code of Regulations, Title 14, section 15000 et seq.
C.F.R	Code of Federal Regulations
COC[s]	Constituent[s] of Concern
DO	Dissolved Oxygen
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EC	Electrical Conductivity
EIR	Environmental Impact Report
FDS	Fixed Dissolved Solids
FEMA	Federal Emergency Management Agency
IPP	Industrial Pretreatment Program
LAA	Land Application Area
lbs/ac/yr	Pounds per Acre per Year

μg/L	Micrograms per Liter
µmhos/cm	Micromhos per Centimeter
MG[D]	Million Gallons [per Day]
mg/L	Milligrams per Liter
msl	Mean Sea Level
MRP	Monitoring and Reporting Program
MW	Monitoring Well
MCL	Maximum Contaminant Level per Title 22
mJ/cm <sup>2</sup>	Millijoules per Square Centimeter
ORP	Oxygen Reduction Potential
N	Nitrogen
ND	Non-Detect
ND	
	Not Established
NE NM	Not Established
NE NM Recycled Water Policy	Not Established Not Monitored <i>Policy for Water Quality Control for Recycled Water</i> , State Water Board Resolution 2009-0011, as
NE NM Recycled Water Policy R[O]WD	<ul> <li>Not Established</li> <li>Not Monitored</li> <li><i>Policy for Water Quality Control for Recycled Water</i>, State Water Board Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057</li> </ul>
NE NM Recycled Water Policy R[O]WD RCRA	Not Established Not Monitored Policy for Water Quality Control for Recycled Water, State Water Board Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057 Report of Waste Discharge
NE NM Recycled Water Policy R[O]WD RCRA SPRRs	Not Established Not Monitored Policy for Water Quality Control for Recycled Water, State Water Board Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057 Report of Waste Discharge Resource Conservation and Recovery Act
NE NM Recycled Water Policy R[O]WD RCRA SPRRs	Not Established Not Monitored Policy for Water Quality Control for Recycled Water, State Water Board Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057 Report of Waste Discharge Resource Conservation and Recovery Act Standard Provisions and Reporting Requirements State Emergency Response Commission

Title 23	California Code of Regulations, Title 23
Title 27	California Code of Regulations, Title 27
TKN	Total Kjeldahl Nitrogen
Unified Guidance	Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (USEPA, 2009)
USEPA	United States Environmental Protection Agency
VOC[s]	Volatile Organic Compound[s]
WDRs	Waste Discharge Requirements
WQO[s]	Water Quality Objective[s]

#### FINDINGS

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) hereby finds as follows:

#### Introduction

- The City of Farmersville (City or Discharger) owns and operates the Farmersville Wastewater Treatment Facility (WWTF or Facility) in Tulare County, Sections 12 and 13, Township 19 S, Range 25 E, Mount Diablo Base and Meridian (MDB&M). The Facility's location is depicted on the Site Location Map in Attachment A.
- 2. The Farmersville WWTF is comprised of the following Tulare County Assessor Parcel Numbers (APNs): 130-030-023-000, 130-030-012-000, 130-020-037-000, 130-020-025-000, and 130-020-027-000.
- 3. As the owner and operator of the WWTF, the Discharger is responsible for compliance with the Waste Discharge Requirements (WDRs) prescribed in this Order.
- 4. The following materials are attached and incorporated as part of this Order:
  - i. Attachment A—Site Location Map
  - ii. Attachment B—Flow Schematic
  - iii. Standard Provisions & Reporting Requirements dated 1 March 1991 (SPRRs)
  - iv. Information Sheet
- 5. Also attached is **Monitoring and Reporting Program R5-2022-0026** (MRP), which requires monitoring and reporting for discharges regulated under these WDRs. The Discharger shall comply with the MRP and subsequent revisions thereto as ordered by the Executive Officer.

#### **Regulatory History**

6. WDRs Order and MRP Order 86-152 were adopted by the Central Valley Water Board on 8 August 1986. WDRs Order 86-152 currently regulates the Farmersville WWTF and authorizes a monthly average discharge flow of up to 1.25 mgd of undisinfected secondary wastewater from two aeration ponds to eight evaporation/percolation ponds and 140 acres of farmland owned by Jack Hesse. Wastewater Reclamation Requirements (WRRs) Order 84-128 were issued for the reclamation of wastewater to the 140 acres owned by Mr. Hesse. The City reportedly never reclaimed effluent on the 140 acres of farmland. On 7 November 2001, a Revised MRP 86-152 was issued to the City.

- 7. On 16 November 2020, the City submitted a Report of Waste Discharge (RWD) for a new WWTF to replace the existing WWTF. The new WWTF consists of one extended aeration active sludge basin with an anoxic zone and three treatment lanes, two 50-foot diameter secondary clarifiers, an aerobic digester, a sludge holding tank, a gravity belt thickener (mechanical dewatering), and four concrete lined sludge drying beds. The treated wastewater will be discharged to ten existing evaporation/percolation ponds. The proposed project will result in a flow increase up to 1.4 mgd.
- 8. The WDRs for the City's WWTF are being updated to ensure the discharge is consistent with water quality plans, policies, and to reflect the upgrades to the WWTF. WDRs Order 86-152 and WRRs Order 84-128 will be rescinded and replaced with this Order.

#### **Facility and Discharge**

- 9. The City's WWTF serves the City of Farmersville. The WWTF receives wastewater from residential, and commercial sources. Currently, there are no significant industrial wastes being discharged, and/or proposed for discharge to the WWTF. Consequently, an Industrial Pretreatment Program will not be required at this time (see Industrial Pretreatment Considerations section below for more discussion).
- 10. Based on 2019 Census data, the City of Farmersville serves an estimated population of about 10,703 people. The City is a severely disadvantaged community with a median household income (in 2019) of \$39,720, according to the United States Census Bureau.
- 11. The former WWTF consisted of headworks, three aerated ponds, and ten evaporation/percolation ponds. The aeration ponds were taken off-line in January 2021 by plugging the influent pumps and disconnecting the power source to the aeration ponds. The City plans on removing and disposing of the sludge accumulated at the bottom of aeration ponds once all the wastewater evaporates. Provision I.2 of this Order requires the Discharger to submit an Aeration Pond Clean Out Work Plan that describes the process the City will take in order to remove and properly dispose of the residual solids and sludge accumulated in the aeration ponds.
- 12. The City's former WWTF had issues with complying with the BOD and settleable solid limits prescribed in WDRs Order 86-152. For example, in a

27 September 2016 Notice of Violation, staff noted 65 exceedances of either the BOD or settleable solids limits from October 2014 and July 2016.

13. The new WWTF went online in January 2021. As described above, the new WWTF has a design treatment and disposal capacity of 1.4 mgd. **Table 1** below, shows the dimensions and volume of the ten evaporation/percolation ponds. A wastewater treatment schematic of the new WWTF is shown in **Attachment B**.

Pond #	Dimensions (feet)	Volume (million gallons)
1	245 x 360 x 6	3.95
2	245 x 360 x6	3.95
3	245 x 584 x 6	6.41
4	258 x 584 x 6	6.75
5	224 x 360 x 6	3.61
6	232 x 162 x 6 214 x 75 x 6	2.40
7	314 x 434 x 6	6.10
8	340 x 262 x 6 202 x 144 x 6 149 x 252 x 6	5.43
9	330 x 420 x 6	6.21
10	340 x 420 x 6	6.40

 Table 1—Dimensions and Volume of Evaporation/Percolation Ponds

14. Effluent flows for 2021 at the WWTF range from 0.55 mgd to 0.93 mgd as shown in **Table 2** below.

Table 2— Endent Flows (in high)					
2021	Minimum	Maximum	Average		
January (See 1 below)					
February	0.64	0.90	0.71		
March	0.63	0.78	0.69		
April	0.62	0.74	0.68		
Мау	0.66	0.85	0.76		
June	0.55	0.85	0.70		

## Table 2— Effluent Flows (in mgd)

2021	Minimum	Maximum	Average
July	0.66	0.82	0.73
August	0.67	0.85	0.77
September	0.71	0.83	0.76
October	0.70	0.93	0.76
November	0.67	0.83	0.76

1. New contract operator took over the new WWTF in February 2021. The former operator did not submit the January 2021 SMR.

15. Recent monitoring data collected from the new WWTF, shown in **Table 3**., indicates the treatment system currently provides 98 to 99 BOD and TSS percent removal.

Date	BOD Influent (mg/L)	BOD Effluent (mg/L)	BOD Removal (%)	TSS Influent (mg/L)	TSS Effluent (mg/L)	TSS Removal (%)
2/17/2021		<17			30	
3/4/2021	314	3.3	98.9	581	4	99.3
4/7/2021	280	4.23	98.5	600	6	99.0
6/3/2021	233	3	98.7	220	3	98.6
7/22/2021	211	3.2	98.5	153	2	98.7
8/11/2021	191	<2	99.0	230	<1	99.6
9/9/2021	<65	<2		180	6	96.7

Table 3 – BOD and TSS Data

16. Influent monitoring for nitrogen was not required by revised MRP 86-152. However, the Discharger collected influent and effluent grab samples at the new WWTF to characterize nitrogen in the wastewater as shown in **Table 4** below. The data consists of five samples collected between 30 June 2021 to 4 August 2021. Based on this data set, the total nitrogen percent removal was approximately 92%.

Table 4 – Influent and Effluent Nitrogen Data				
Constituent	Units	Influent	Effluent	
Ammonia (as N)	mg/L	38	<0.2	
Nitrate (as N)	mg/L	0.2	3.1	
Total Nitrogen	mg/L	52	4.2	

17. Effluent EC monitoring data from 2019 through 2021 is shown below in **Table 5**.

	2019 (See 1 below)	2020 (See 2 below)	2021 (See 3 below)
Minimum	574	640	412
Maximum	798	747	893
Annual Average	669	702	513

	Table 5 –	Effluent EC	(in	µmhos/cm)
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1. Analytical data from January through December 2019.

2. Analytical data from January through November 2020.

3. Analytical data from February through April and June through November 2021.

- 18. According to the RWD, current sludge handling operations at the WWTF consist of transferring sludge from the sludge holding tank into the gravity belt thickener prior to sending to the sludge digester tank for stabilization. After the digester, sludge is transferred to the sludge drying beds and then hauled off-site. Historically, sludge produced at the WWTF was hauled off-site to the Visalia Disposal Site in Tulare County regulated by WDRs Order R5-2021-00009. It is anticipated that sludge will continue to be hauled off to the Visalia Disposal Site. Provision I.3 of this Order requires the Discharger to submit a Sludge Management Plan that describes current and future sludge/biosolids handling and disposal practices at the WWTF.
- 19. Stormwater at the Facility is contained on-site in a stormwater pond. Drain inlets throughout the Facility collect run off that is sent to the stormwater pond.

#### **Industrial Pretreatment Considerations**

- 20. Certain industrial wastes, when discharged to wastewater treatment facilities without adequate controls, may cause one or more of the following problems:
  - a. **Interference or Upset.** Discharges of high volumes or concentrations of certain waste constituents can inhibit or interfere with proper operations,

thereby impairing the WWTF's ability to treat wastewater—and potentially preventing compliance with WDRs.

- b. Sludge Management. Industrial wastes, particularly metals and other toxic constituents, can limit available sludge management alternatives, thereby increasing the cost of sludge management and disposal. Contaminated biosolids may also be unsuitable as a soil amendment.
- c. **Pass-Through.** Some industrial wastes may not receive adequate treatment and pass through the treatment system in concentrations that can could unreasonably degrade groundwater quality and/or prevent recycling of domestic wastewater.
- d. **Other Hazards.** Additionally, the discharge of explosive, reactive, or corrosive wastes can cause damage to the wastewater collection system or the treatment works, as well as threaten the safety of workers and/or the general public.
- 21. Currently, there are no significant industrial wastes discharged to the Facility. Consequently, an Industrial Pretreatment Program will not be required at this time. However, this Order requires the Discharger to report any proposed new industrial discharges and, if directed by the Executive Officer, to develop an Industrial Pretreatment Program regulating such discharges. Additionally, this Order also may be subsequently revised to require compliance with an approved program, if necessary.

## **Site-Specific Conditions**

Topography, Climate and Land Use

- 22. The soils below the WWTF are primarily Grangeville Sandy loam and Nord Fine Sandy loam, according to the Web Soil Survey published by the United States Department of Agriculture, Natural Resources Conservation Service. Grangeville Sandy loam and Nord Fine Sandy loam have irrigated land capabilities of 1. Soils with "Class 1" have few limitations that restrict their use.
- 23. The WWTF is 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 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.

- 24. According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (https://msc.fema.gov/portal), majority of the WWTF is in Zone X. However, the eastern portion of the WWTF, adjacent to Deep Creek, is in Zone A. Areas in Zone X are outside of the 1 percent annual chance of flood with average depth less than one foot. Areas in Zone A have a 1 percent chance of flooding (typically called the 100-year floodplain). No depth or base flood elevations are shown in the FEMA map for this site.
- 25. Land uses in the vicinity of the WWTF are primarily agricultural and includes deciduous fruits and nuts, field crops, grain and hay crops according to the California Department of Water Resources Land Use Viewer, Statewide Crop Mapping 2018.

Groundwater and Subsurface Conditions

26. The City obtains its source water from seven supply wells (Well 01A, 03A, 04A, 05A, 06A, 07A, and 08A). Flow-weighted average source water quality data from June 2020 is presented in **Table 6** below.

Constituent/Parameter	Units	Flow-Weighted Average			
EC	µmhos/cm	174			
TDS	mg/L	84			
Nitrate (as N)	mg/L	3.4			
TKN	mg/L	ND			
Ammonia (as N)	mg/L	ND			
Iron	mg/L	0.39			
Manganese	mg/L	0.035			

Table 6 – Source Water Quality

- 27. According to the Spring 2020 Depth to Groundwater Map published by the Kaweah Delta Water Conservation District, groundwater in the area is found between 90 and 100 feet below ground surface (bgs) and flows in the southwest direction.
- 28. The Corcoran clay layer is not found below the WWTF in section 12 and 13 of Township 19 South, Range 25 East, MDB&M according to the *Depth to Top of Corcoran Clay* map published by the Department of Water Resources in 1981.
- 29. Groundwater data obtained from the Water Resources of the United States <u>National Water Information System (NWIS) Mapper</u> (usgs.gov) (https://maps.waterdata.usgs.gov/mapper/index.html) of three nearby wells

(B1: 361700119100001, B2: 361900119110001, and B3: 361600119150001) are shown in **Table 7** below.

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Constituent/Parameter	B1 (12/16/2014)	B2 (1/13/2015)	B3 (12/9/2014)		
Well Depth	195	84	144		
EC (µmhos/cm)	295	120	661		
Nitrate (as N) (mg/L)	2.78	0.041	7.43		
Sodium (mg/L)	19.9	5.47	41.7		
Chloride (mg/L)	4.51	2.17	21.2		
Magnesium (mg/L)	10.9	5.47	15.8		
Iron (mg/L)	0.057	<0.004	<0.004		
Manganese (mg/L)	0.002	<0.0004	0.0005		

Table 7 – Groundwater Quality from Nearby Wells

- 30. The WWTF's groundwater monitoring well network currently consists of five pairs of wells (five shallow wells and five deep wells) that were installed in March 2019. According to the May 2017 Monitoring Well Installation Work Plan, the new wells were installed to replace the existing wells (MW-1 through MW-5) that went dry in 2002. The shallow wells (MW-1C through MW-5C) and deeper wells (MW-1D through MW-5D) were installed next to each other to allow the City to sample the monitoring wells in case groundwater levels fluctuate in the area.
- 31. Well depths of the new groundwater monitoring wells range from 107 to 140 feet bgs as shown in **Table 8**.

Well	Well Depth (feet bgs)	Screen Interval (feet bgs)
Well-1C	107	81-107
Well-1D	140	114-140
Well-2C	117	91-117
Well-2D	150	124-150
Well-3C	117	91-119
Well-3D	150	124-150
Well-4C	107	81-107
Well-4D	140	114-140
Well-5C	107	81-107
Well-5D	140	114-140

 Table 8 – Groundwater Monitoring Well Construction Details

32. **Table 9** below summarizes the groundwater monitoring data collected from the onsite wells during October 2019 to March 2021. During this time, the shallow wells, MW-1C through MW-5C, were dry. The number in parenthesis indicates

the number of sampling results and the numbers in bold indicates concentrations above their respective MCL.

Table 9 – Groundwater Quality Data						
Constituent/ Parameter	MW-1D	MW-2D	MW-3D	MW-4D	MW-5D	MCL
Calcium	14	62	51	109	61	
(mg/L)	(1)	(1)	(1)	(1)	(1)	
Chloride	2.34	48.6	26.6	44.1	33.6	
(mg/L)	(8)	(8)	(9)	(1)	(8)	250-500
Iron	0.03	0.165	2.56	2.85	19.5	0.3
(mg/L)	(1)	(2)	(1)	(2)	(1)	0.5
Manganese	< 0.01	1.4	< 0.01	< 0.01	1.4	0.05
(mg/L)	(1)	(2)	(1)	(1)	(1)	0.05
Magnesium	4	18	16	33	17	
(mg/L)	(1)	(1)	(1)	(1)	(1)	
Nitrate (as N)	0.44	0.64	1.13	0.88	1.03	10
(mg/L)	(8)	(8)	(9)	(1)	(8)	10
TKN	<0.5	0.9	<0.5	<0.5	<0.5	
(mg/L)	(1)	(1)	(1)	(1)	(1)	
Total Nitrogen	<0.5	0.9	1.0	<0.5	5.5	
(mg/L)	(1)	(1)	(1) 2	(1) 3	(1) 2	
Potassium	<1	3	2	3	2	
(mg/L)	(1)	(1)	(1)	(1)	(1)	
Sodium	12.1	51.8	21.7	20.6	44.8	
(mg/L)	(1)	(8)	(9)	(8)	(8)	
Sulfate	3.6	14.1	11.8	22	16.8	250 500
(mg/L)	(1)	(1)	(1)	(2)	(1)	250-500
TDS	107	437	311	496	340	500 1 000
(mg/L)	(8)	(8)	(9)	(8)	(8)	500-1,000
EC	128	711	522	886	709	000 1 600
(µmhos/cm)	(1)	(1)	(1)	(1)	(1)	900-1,600

Table 9 – Groundwater	Quality	Data
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Table Note: MW-1D is an upgradient well, while MW-2D, MW-3D, MW-4D, and MW-5D are downgradient wells.

33. Downgradient wells MW-3D through MW-5D have iron concentrations above the secondary MCL of 0.3 mg/L as shown in bold in **Table 9** above. In addition, groundwater wells MW-2D and MW-5D have manganese concentrations above the secondary MCL of 0.05 mg/L, also shown in bold. Groundwater data also indicates an increase in salinity from the upgradient well versus the downgradient wells.

34. Groundwater in the area is of good quality with respect to iron and manganese. According to the RWD, the elevated concentrations of iron and manganese below the WWTF are attributed to the discharge of high organics from the previous WWTF. The new WWTF will provide significantly higher level of organic removal and, therefore, should mitigate the WWTF's future impact on underlying groundwater for iron and manganese. The MRP requires regular groundwater monitoring for iron and manganese to evaluate the impact of the Facility's improved discharge to groundwater over time.

## **Statutory Authority**

35. This Order is adopted pursuant to Water Code section 13263, subdivision (a), which provides in pertinent part as follows:

The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge..., with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed.

- 36. Compliance with section 13263, subdivision (a), including implementation of applicable water quality control plans, is discussed in the findings below.
- 37. The ability to discharge waste is a privilege, not a right, and adoption of this Order shall not be construed as creating a vested right to continue discharging waste. (Wat. Code, § 13263, subd. (g).)
- 38. This Order and its Monitoring and Reporting Program (MRP) are also adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides as follows:

[T]he regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste ... 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.

39. The reports required under this Order, as well as under the separately-issued MRP, are necessary to verify and ensure compliance with WDRs. The burden

associated with such reports is reasonable relative to the need for their submission.

## **Basin Plan Implementation**

40. Pursuant to Water Code section 13263, subdivision (a), WDRs must "implement any relevant water quality control plans..., and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241."

#### **Beneficial Uses of Water**

- 41. This Order implements the Central Valley Water Board's Water Quality Control Plan for the Tulare Lake Basin (Basin Plan), which designates beneficial uses for surface water and groundwater and establishes water quality objectives (WQOs) necessary to preserve such beneficial uses. (See Wat. Code, § 13241 et seq.)
- 42. Local drainage is to the Valley Floor Waters. The beneficial uses of Valley Floor Waters within the subject hydrologic area (Kaweah Delta Hydrologic Area No. 558.10) including the following: agricultural supply (AGR); industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1); non-water contact recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); and groundwater recharge (GWR).
- 43. Per the Basin Plan, beneficial uses of underlying groundwater at the Facility include the following: municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1); and wildlife habitat (WILD).

#### Water Quality Objectives

- 44. The numeric WQO for bacteria is expressed as the most probable number (MPN) of coliform organisms per 100 mL of water. For MUN-designated groundwater, the objective is an MPN of 2.2 organisms over any seven-day period.
- 45. The narrative WQO for chemical constituents in groundwater generally provides that groundwater shall not contain constituents in concentrations adversely affecting beneficial uses. For MUN-designated waters, the Basin Plan further provides that water, at a minimum, meet the primary and secondary maximum

contaminant levels (MCLs) specified in California Code of Regulations, title 22 (Title 22).<sup>1</sup> (See Title 22, §§ 64431, 64444, 64449.)

- 46. The narrative WQO for toxicity provides that groundwater shall be maintained free of toxic substances in concentrations producing detrimental physiological responses in human, animal, plant or aquatic life associated with designated beneficial uses.
- 47. To the extent necessary, narrative WQOs are quantified, on a site-specific basis, as numeric limits for constituents with potential to adversely impacted designated uses. In determining a site-specific numeric limit, the Central Valley Water Board considers relevant published criteria.
- 48. In determining a numeric limit for salinity protective of agricultural supply (AGR), the Central Valley Water Board is relying on general salt tolerance guidelines, which indicate that although yield reductions in nearly all crops are not evident when irrigation water has an electrical conductivity (EC) of less than 700 μmhos/cm, there is an eight- to ten-fold range in salt tolerance for agricultural crops. (See, e.g., Ayers & Westcot, *Water Quality for Agriculture* (1985), § 2.3.) For this reason, appropriate salinity values are considered on a case-by-case basis. It is possible to achieve full yield potential with groundwater EC up to 3,000 μmhos/cm, if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop.
- 49. Section 4.1.11.5 of the Basin Plan specifies the level of treatment required for domestic wastewater facilities with land disposal. The Basin Plan states that for wastewater discharges precluded from public access, with design flows in excess of 1 million gallons per day (e.g., Farmersville WWTF), the wastewater facility must provide removal of 80% or reduction to 40 mg/L (whichever is more stringent) for both BOD and suspended solids. The BOD and TSS effluent limitations included in this Order are based on these Basin Plan limitations.

Salt and Nitrate Control Programs

50. The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting (Salt and Nitrate Control Programs). The Basin Plan amendments were conditionally approved by the State Water Board on 16 October 2019 (Resolution 2019-0057), approved by the

<sup>&</sup>lt;sup>1</sup> 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.

Office of Administrative Law on 15 January 2020 (OAL Matter No. 2019-1203-03), and became effective on 17 January 2020.

- 51. For the Salt Control Program, dischargers that are unable to comply with stringent salinity requirements will instead need to meet performance-based requirements and participate in a basin-wide effort known as the Prioritization and Optimization Study (P&O Study) to develop a long-term salinity strategy for the Central Valley. The Discharger was issued a Notice to Comply for the Salt Control Program on 5 January 2021. On 28 January 2021, the Central Valley Water Board received a Notice of Intent for the Facility (CV-SALTS ID: 2663). The Discharger has elected to participate in the P&O Study. In the interim, to maintain existing salt discharges and minimize salinity impacts this Order does the following:
  - a. Requires the discharger to continue efforts to control salinity in its discharge to the extent feasible; and
  - Sets a Salinity Action Level of 700 µmhos/cm for the discharge of wastewater to the evaporation/percolation ponds.
- 52. For the Nitrate Control Program, dischargers that are unable to comply with stringent nitrate requirements will be required to take on alternate compliance approaches that involve providing replacement drinking water to persons whose drinking water is affected by nitrates. Dischargers may comply with the new nitrate program either individually (Pathway A) or collectively with other dischargers (Pathway B). For the Nitrate Control Program, the Discharger falls within Groundwater Sub-Basin 5-22.11 (San Joaquin Valley Kaweah), a Priority 1 Basin. The Discharger was issued a Notice to Comply with instructions and obligations for the Nitrate Control Program on 29 May 2020. To comply with the Nitrate Control Program, the Discharger is a participant of the Kaweah Management Zone.
- 53. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs. As such this Order may be amended or modified to incorporate any newly applicable requirements to ensure that the goals of the Salt and Nitrate Control Programs are met.

#### Antidegradation Policy

54. The Statement of Policy with Respect to Maintaining High Quality Waters in California, State Water Board Resolution 68-16 (Policy), which is incorporated as part of the Basin Plan, prohibits the Central Valley Water Board from authorizing degradation of "high quality waters" unless it is shown that such degradation:
(1) will be consistent with the maximum benefit to the people of California;
(2) will not unreasonably affect beneficial uses, or otherwise result in water

quality less than as prescribed in applicable policies; and (3) is minimized through the discharger's best practicable treatment or control (BPTC).

- 55. Groundwater quality monitoring at the Facility dates to 1986. Given the unavailability of pre-1968 water quality information, compliance with the Antidegradation Policy will determined based on existing background water quality (Antidegradation Baseline).
- 56. Constituents of concern (COCs) for the WWTF's discharge that have the potential to degrade groundwater include salt, iron, manganese, nitrate, and total coliform as discussed below and in **Table 10**. The Discharger is not currently required to monitor the WWTF's discharge for TDS, iron, or manganese.

Constituent	Units	Effluent	Upgradient (See 3 below)	Downgradient (See 3 below)	Regional Groundwater Quality (See 4 below)	WQOs
TDS	mg/L		107	311-496		500- 1,000
EC	µmhos/cm	513 (See 1 below)	128	522-886	120-661	900- 1,600
Iron	mg/L		0.03	0.16-19.5	<0.004-0.057	0.3
Manganese	mg/L		<0.01	<0.01-1.4	<0.0004- 0.002	0.005
Nitrate (as N)	mg/L	3.10 (See 2 below)	0.44	0.88-1.13	0.041-7.43	10

#### Table 10 – Constituents with Potential for Degradation

1. Average effluent EC based on samples collected February through April and June through December 2021.

2. Average effluent Nitrate as N concentration based on samples collected from 30 June through 28 July 2021.

3. Upgradient and downgradient on-site groundwater quality based on samples collected from October 2019 through March 2021.

4. Regional groundwater quality based on samples collected in 2014 and 2015.

- a. **Salinity (EC and TDS).** Based on available data, the Facility's annual average EC was 669 µmhos/cm in 2019, 702 µmhos/cm in 2020, and 513 µmhos/cm in 2021. These concentrations are below the recommended secondary MCL of 900 µmhos/cm. Currently there are no reported industrial dischargers to the WWTF's collection system. The Facility's groundwater monitoring network indicates that the Facility's discharge has degraded underlying groundwater. With a source water EC of about 174 µmhos/cm (2020), the net increase (source water vs effluent) in EC in the WWTF's discharge (since being upgraded) is around 300 µmhos/cm. To help ensure that the Discharge continues to implement salinity reduction measures, this Order includes a Salinity Action Level. Furthermore, this Order requires the Discharger to continue to comply with the new Salinity Control Program (i.e., continue to participate in the P&O Study).
- b. **Iron and Manganese.** Regional groundwater data from 2014 and 2015 show concentrations below the iron secondary MCL of 0.3 mg/L and the manganese secondary MCL of 0.005 mg/L. Groundwater data from the Facility's onsite monitoring well network shows some downgradient iron and manganese concentrations above the respective MCLs. However, the recent upgrades to the WWTF significantly improves the WWTF's ability to remove organic matter, which should result in improved groundwater conditions at the site for iron and manganese. This Order requires effluent and groundwater monitoring for iron and manganese to continue to monitor the Facility's impact on underlying groundwater.
- c. Nitrate. Groundwater data from the on-site groundwater monitoring wells indicates groundwater is of good quality with respect to nitrate. Based on limited available nitrate data for the effluent, it does not appear the discharge has significantly impacted underlying groundwater for nitrate (comparing upgradient well MW-1D nitrate (as N) concentration as shown in Table 10 to downgradient wells). With the upgraded wastewater treatment system, which provides nitrification and denitrification, effluent nitrate concentrations have significantly improved. In addition, this Order require the Discharger to comply with the new Nitrate Control Program.
- d. Total Coliform. Revised MRP 86-152 did not require the Discharger to monitor groundwater for total coliform. The 2020 RWD included limited total coliform data collected from October 2019 through February 2020. Total coliform detections were detected in Monitoring Well MW-2D in five out of the eight sampling events. However, total coliform was not present in monitoring wells MW-1D, MW-3D, MW-4D, or MW-5D. As discussed in Finding 27, groundwater is found between 90 and 100 feet bgs. Prior to effluent reaching groundwater, effluent percolates through at least 90 feet

of fine grain soils, which is expected to be sufficient to filter out coliform organism and to prevent groundwater degradation. Therefore, it does not appear the Facility's discharge will have a significant impact on underlying groundwater with respect to total coliform. Nevertheless, this Order requires the Discharger to monitor groundwater for total coliform to evaluate any potential impacts to groundwater related to the Facility's discharge.

- 57. This Order establishes terms and conditions to ensure that the authorized discharge from the Facility will not excessively degrade groundwater quality, contribute to existing pollution, or unreasonably affect present and anticipated future beneficial uses.
- 58. Generally, limited degradation of groundwater by some of the typical waste constituents of concern (e.g., EC and nitrate) released with the discharge from a municipal wastewater utility after effective source control, and treatment is consistent with maximum benefit to the people of the state. The technology, energy, water recycling, and waste management advantages of municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impacts on water quality will be substantially less. The degradation will not unreasonably affect present and anticipated beneficial uses of groundwater, or result in water quality less than water quality objectives.
- 59. The Discharger implements, or will implement, as required by this Order the following BPTC measures, which will minimize the extent of water quality degradation resulting from the Facility's continued operation:
  - a. Improved treatment of domestic wastewater (i.e., secondary treatment of wastewater);
  - b. Conducting groundwater monitoring to monitor the potential impact of the Facility's discharge on underlying groundwater;
  - c. Compliance with the Salt and Nitrate Control Programs;
  - d. Compliance with a Salinity Action Level of 700 µmhos/cm;
  - e. Sludge/biosolids dried in lined sludge drying beds and hauled off-site; and
  - f. Use of certified operators to ensure proper operation and maintenance of the WWTF.
- 60. Based on the foregoing, the adoption of this Order is consistent with the State Water Board's Antidegradation Policy.

## California Environmental Quality Act

- 61. In accordance with the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., the City of Farmersville, filed a Mitigated Negative Declaration (SCH#2012101041) on 12 October 2012 to upgrade its WWTF. In the Mitigated Negative Declaration (MND), the City of Farmersville found that the "project," which includes the following pertinent elements, would not have a significant effect on the environment, provided that specified mitigation measures were implemented:
  - a. Discharger obtains updated waste discharge requirements; and
  - b. Discharger install new groundwater monitoring wells.
- 62. This Order implements all applicable mitigation and monitoring measures specified in the Mitigated Negative Declaration.

## **Other Regulatory Considerations**

## Human Right to Water

63. Pursuant to Water Code section 106.3, subdivision (a), it is "the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." Although this Order is not subject to Water Code section 106.3, as it does not revise, adopt or establish a policy, regulation or grant criterion, (see § 106.3, subd. (b)), it nevertheless promotes the policy by requiring discharges to meet maximum contaminant levels (MCLs) for drinking water, which are designed to protect human health and ensure that water is safe for domestic use.

#### **Threat-Complexity Rating**

- 64. For the purposes of California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of 2-B.
  - a. Threat Category "2" reflects waste discharges that can impair receiving water beneficial uses, cause short-term water quality objective violations, cause secondary drinking water standard violations, and cause nuisances.
  - b. Complexity Category "B" reflects any discharger not included in Category A, with either (1) physical, chemical or biological treatment systems (except for septic systems with subsurface disposal), or (2) any Class II or Class III WMUs.

#### Title 27 Exemption

65. This Order, which prescribes WDRs for discharges of domestic sewage or treated effluent from a municipal treatment plant, is exempt from the prescriptive requirements of California Code of Regulations, title 27 (Title 27), section 20005 et seq. (See Cal. Code Regs., tit. 27, § 20090, subd. (a) - (b).)

#### Stormwater

66. This Order does not cover stormwater and other discharges that are subject to the Clean Water Act's National Pollution Discharge Elimination System (NPDES). Because all storm water at the WWTF is collected and disposed of onsite, the Discharger is not required to obtain coverage under *Statewide General Permit for Storm Water Discharges Associated with Industrial Activities*, State Water Board Order 2014-0057 DWQ, NPDES General Permit CAS000001 (Industrial General Permit) at this time.

#### Sanitary Sewer Overflows

- 67. Sanitary Sewer Overflows<sup>2</sup> (SSO), which typically consists of a mixture of domestic and commercial wastewater, often contain pathogenic organisms, toxic pollutants, nutrients, oxygen demanding organic compounds, oil and grease, suspended solids and other pollutants. When an SSO results in a discharge to surface water, it can cause temporary exceedances of water quality objectives, pose a threat to public health, adversely affect aquatic life, and impair recreational use and aesthetic enjoyment of surface waters in the area. The most common causes are grease blockages, root blockages, debris blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, storm or groundwater inflow/infiltration, lack of capacity, and/or contractor-caused blockages.
- 68. On 2 May 2006, the State Water Board adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, State Water Board Order 2006-0003-DWQ (SSO General Order), which requires that all public agencies owning or operating sanitary sewer systems with total system lengths in excess

<sup>&</sup>lt;sup>2</sup> For the purposes of this Order, a "Sanitary Sewer Overflow" is a discharge to ground or surface water from the sanitary sewer system at any point upstream of the treatment facility. Temporary storage and conveyance facilities (e.g., wet well, regulated impoundments, tanks, highlines, etc.) may be part of a sanitary sewer system and discharges to these facilities are not considered SSOs, provided that the waste is fully contained within these temporary storage/conveyance facilities.

of one mile enroll under the SSO General Order. The City's collection system exceeds one mile in length and the City is enrolled under the General Order.

#### Biosolids

69. The United States Environmental Protection Agency (US EPA) has promulgated biosolids reuse regulations in Code of Federal Regulations (CFR), title 40, part 503, Standards for the Use or Disposal of Sewage Sludge (Part 503), which establishes management criteria for protection of ground and surface waters, sets limits and application rates for heavy metals, and establishes stabilization and disinfection criteria. The Central Valley Water Board is not the implementing Agency for Part 503 regulations. The Discharger may have separate and/or additional compliance, reporting, and permitting responsibilities to the US EPA.

#### Scope of Order

- 70. This Order is strictly limited in scope to those waste discharges, activities and processes described and expressly authorized herein.
- 71. Pursuant to Water Code section 13264, subdivision (a), the Discharger is prohibited from initiating the discharge of new wastes (i.e., other than those described herein), or making material changes to the character, volume and timing of waste discharges authorized herein, without filing a new Report of Waste Discharge (ROWD) per Water Code section 13260.
- 72. Failure to file a new ROWD before initiating material changes to the character, volume or timing of discharges authorized herein, shall constitute an independent violation of these WDRs.
- 73. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as "Discharger," subject only to the discretion to designate or substitute new parties in accordance with this Order.

#### **Procedural Matters**

- 74. All of the above information, as well as the information contained in the attached Information Sheet (incorporated herein), was considered by the Central Valley Water Board in prescribing the WDRs set forth below.
- 75. The Discharger, interested agencies and other interested persons were notified of the Central Valley Water Board's intent to prescribe the WDRs in this Order, and provided an opportunity to submit their written views and recommendations at a public hearing. (See Wat. Code, § 13167.5.)

- 76. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.
- 77. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

## REQUIREMENTS

**IT IS HEREBY ORDERED**, pursuant to Water Code sections 13263 and 13267: that WDRs Order 86-152 and WRRs Order 84-128 are rescinded (except for enforcement purposes); and that the Discharger and their agents, employees and successors shall comply with the following.

#### A. Standard Provisions

1. Except as expressly provided herein, the Discharger shall comply with the Standard Provisions and Reporting Requirements dated 1 March 1991 (SPRRs), which are incorporated herein.

#### B. Discharge Prohibitions

- 1. Waste classified as "hazardous" (per Cal. Code Regs., tit. 22, § 66261.1 et seq.), shall not be discharged at the Facility under any circumstance.
- 2. Waste constituents shall not be discharged or otherwise released from the Facility (including during treatment and storage activities) in a manner that results in:
  - a. Violations of the Groundwater Limitations of this Order; or
  - b. Conditions of "nuisance" or "pollution," as defined per Water Code section 13050.
- 3. Except as otherwise expressly authorized in this Order, sewage and other waste shall not be discharged to surface waters or surface water drainage courses (including irrigation ditches outside of Discharger's control).
- 4. Except as provided in Section E.2 of the SPRRs, incorporated herein, untreated wastes and partially treated wastes shall not bypass the treatment system (including treatment ponds).
- 5. Waste shall not be discharged from the Facility in a manner other than as described in this Order.
- 6. Discharge of treated effluent to any site other than the treatment and/or evaporation/storage ponds as described in this Order is prohibited.

7. Toxic substances shall not be discharged into the wastewater treatment system such that biological treatment mechanisms are substantially disrupted.

## C. Flow Limitation

1. Effluent discharged to the evaporation/percolation ponds, monitored at EFF-001 (as defined in the MRP), shall not exceed a monthly average flow of 1.40 mgd.

## D. Effluent Limitations

1. Effluent discharged to the evaporation/percolation ponds monitored at EFF-001 (as defined in the MRP), shall not exceed the limits specified in **Table 11** below.

Constituent	Daily Maximum	Monthly Average			
BOD <sub>5</sub>	80 mg/L	40 mg/L			
TSS	80 mg/L	40 mg/L			

#### Table 11 – Effluent Limits

2. The arithmetic mean of BOD<sub>5</sub> and TSS in effluent samples (EFF-001) collected over a monthly period shall not exceed 20 percent of the arithmetic mean of the values for influent samples (INF-001) collected at approximately the same time during the same period (i.e., minimum of 80 percent removal).

## E. Salinity Action Level

- 1. To comply with the Salt Control Program, the Discharger selected the Alternative Salinity Permitting Approach (i.e., participate in the Prioritization and Optimization [P&O] Study). Therefore, as discussed in Finding 51, these WDRs establish a Salinity Action Level of 700 µmhos/cm. As part of the Fourth Quarter Monitoring Report required in the MRP, the Discharger shall evaluate the Facility's annual average effluent EC (monitored at EFF-001) to the Salinity Action Level. If the Facility's discharge exceeds the Salinity Action Level, the Discharger shall submit a Salinity Action Level Report by 1 March of the year following the exceedance of the Salinity Action Level. The Salinity Action Level Report shall, at a minimum, include the following:
  - a. An evaluation of the Facility's salinity effluent levels. This evaluation shall discuss any changes to the source water for the area served by the WWTF, any new industrial dischargers discharging to the WWTF, any increased conservation efforts implemented within the WWTF

service area (with flow data demonstrating decreased flows to the WWTF), and any other changes to WWTF's collection or treatment system that could have contributed to the increased salinity concentrations.

- b. If additional time is needed to investigate the source(s) of the salinity in the Facility's discharge, the Salinity Action Level Report shall include a detailed work plan describing what actions the Discharger will conduct (with completion dates) to investigate the source(s) of salinity and report its findings to the Central Valley Water Board. The findings from the investigation shall be submitted to the Central Valley Water Board **no later than October 1**<sup>st</sup> of the year following the exceedance of the Salinity Action Level.
- c. The Salinity Action Level Report shall evaluate the potential impact the increased salinity concentrations could have on underlying groundwater and downgradient users. If additional time is needed for this evaluation, the Salinity Action Level Report shall propose a submittal date (no later than October 1<sup>st</sup> of the year following the exceedance of the Salinity Action Level).

#### F. Discharge Specifications

- 1. No waste constituent shall be released, discharged, or placed where it will cause a violation of the Groundwater Limitations of this Order.
- 2. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.
- 3. Wastewater contained in any unlined pond shall not have a pH less than 6.0 or greater than 9.0.
- 4. The discharge shall remain within the permitted wastewater ponds, conveyance structures at all times.
- 5. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
- 6. Public contact with wastewater at the WWTF shall be precluded through such means as fences, signs, or acceptable alternatives.
- 7. Objectionable odors shall not be perceivable beyond the limits of the WWTF property at an intensity that creates or threatens to create nuisance conditions.

- 8. As a means of ensuring compliance with Discharge Specification F.7, the dissolved oxygen (DO) content in the upper one foot of any wastewater treatment or storage pond shall not be less than 1.0 mg/L for three consecutive sampling events. Notwithstanding the DO monitoring frequency specified in the monitoring and reporting program, if the DO in any single pond is below 1.0 mg/L for any single sampling event, the Discharger shall implement daily DO monitoring (excluding weekends and holidays) of that pond until the minimum DO concentration is achieved for at least three consecutive days. If the DO in any single pond is below 1.0 mg/L for three consecutive days, the Discharger shall report the findings to the Central Valley Water Board in accordance with **Section B.1** of the SPRRs. The written notification shall include a specific plan to resolve the low DO results within 30 days of the first date of violation.
- 9. The Discharger shall design, construct, operate, and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. The operating freeboard in any pond shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge or other suitable measurement device with calibration marks that clearly show the water level at 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 capacity shall at least equal the volume necessary to comply with Discharge Specifications F.9 and F.10.
- 12. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.
- 13. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes. Specifically:

- a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.
- b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
- c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
- d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.
- 14. The Discharger shall monitor sludge accumulation in the wastewater treatment/storage ponds at least every five years and shall periodically remove sludge as necessary to maintain adequate storage capacity. Specifically, if the estimated volume of sludge in the reservoir threatens to impact the pond(s) storage/disposal capacity, the Discharger shall complete sludge cleanout within 12 months after the date of the estimate.

#### G. Groundwater Limitations

Release of waste constituents from any treatment, reclamation or storage component associated with the WWTF shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below:

- 1. Total coliform organism level of 2.2 MPN/100 mL over any seven-day period.
- 2. Constituents in concentrations that exceed either the Primary or Secondary MCLs established in Title 22 of the California Code of Regulations, excluding salinity and nitrate.
- 3. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

#### H. Solids Disposal Specifications

- 1. Sludge<sup>3</sup> and Solid Waste<sup>4</sup> shall be removed from screens, sumps, ponds, and clarifiers as needed to ensure optimal plant operation, prevent nuisance conditions, and maintain adequate storage capacity.
- 2. Residual sludge, biosolids, and solid waste 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., landfills, WWTFs, composting sites, soil amendment sites) operated in accordance with valid waste discharge requirements issued by a Regional Water Board will satisfy this specification.
- 3. Onsite handling and storage of residual sludge,<sup>5</sup> solid waste, and biosolids<sup>6</sup> shall be temporary (2 years or less); 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.
- 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 will mean the General Biosolids Order (State Water Resources Control Board Water Quality Order 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

<sup>5</sup> For the purposes of this section, "**residual sludge**" means sludge that will not be subject to further treatment at the Facility.

<sup>6</sup> For the purposes of this section, "**biosolids**" refers to sludge that has been treated and tested and shown to be capable of being beneficially used as a soil amendment for agriculture, silviculture, horticulture, and land reclamation activities pursuant to federal and state regulations.

<sup>&</sup>lt;sup>3</sup> For the purposes of this section, "**sludge**" means the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes.

<sup>&</sup>lt;sup>4</sup> For the purposes of this section, "**solid waste**" includes grit and screenings generated during preliminary treatment at the Facility.

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.

#### I. Provisions

- 1. The reports/submittals required in this section shall be submitted pursuant to Water Code section 13267 and shall be prepared as described in Provision I.4.
- 2. **By 20 July 2022**, the Discharger shall submit an **Aeration Pond Cleanout Work Plan** proposing how the Discharger will remove organic material and sediment from the former aeration ponds. The work plan shall provide a timeline for the following:
  - a. Removing the organic material/sediment, including what methods will be used to remove solids and discuss how deep the ponds will be excavated;
  - b. Collecting soil samples of the ponds to ensure all organic material and sediment has been removed from ponds<sup>7</sup>; and
  - c. Submitting a final evaluation that demonstrates, based on the sampling results, the former ponds no longer pose a threat to underlying groundwater quality.

The work plan should also discuss where excavated solids will be hauled to and what the Discharger intends to do with the former aeration ponds

<sup>&</sup>lt;sup>7</sup> The soil samples of the former ponds shall be analyzed for at least BOD, nitrate, TKN, total nitrogen, and metals (metals listed in Title 22).

after they are cleaned out (e.g., fill the ponds, use the ponds as additional aeration/evaporation ponds, etc.).

- 3. **By 20 July 2022**, the Discharger shall submit a **Sludge Management Plan** that describes current and future solids and sludge/biosolids handling practices and how compliance with the Solids Disposal Specification and monitoring requirements of this Order will be achieved.
- 4. The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer and incorporate comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Discharger shall proceed with all work required by the foregoing provisions by the due dates specified.
- 5. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.
- 6. The Discharger shall comply with **Monitoring and Reporting Program R5-2022-0026**, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.
- 7. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including

Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

- 8. The Discharger shall provide certified operators for the WWTF in accordance with Title 23, division 3, chapter 26.
- 9. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal systems in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.
- 10. 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 Central Valley Water Board by 31 January.
- 11. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.
- 12. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.
- 13. The Discharger shall comply with the Basin Plan amendments adopted in Resolution R5-2018-0034 incorporating new programs (Salt and Nitrate Control Program) for addressing ongoing salt and nitrate accumulation in the Central Valley developed as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative.
- 14. As described in the SPRRs, 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.

- 15. In the event that the Discharger reports toxic chemical release data to the State Emergency Response Commission (SERC) pursuant to section 313 of the Emergency Planning and Community Right to Know Act (42 U.S.C. section 11023), the Discharger shall also report the same information to the Central Valley Water Board within 15 days of the report to SERC.
- 16. The Discharger shall continue to comply with the requirements of the Statewide General Waste Discharge Requirements (General WDRs) for Sanitary Sewer Systems (Water Quality Order 2006-0003), the Revised General WDRs Monitoring and Reporting Program (Water Quality Order 2008-0002-EXEC), and any subsequent revisions thereto. Water Quality Order 2006-0003 and Order 2008-0002-EXEC require 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.
- 17. At least 90 days prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and ensure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to ensure full compliance with this Order.
- 18. In the event of any change in control or ownership of the WWTF, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.
- 19. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.
- 20. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the WWTF for reference by

operating personnel. Key operating personnel shall be familiar with its contents.

## ENFORCEMENT

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.

#### ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day 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. <u>Copies of the law and regulations</u> applicable to filing petitions are available on the Internet (at the address below) and will be provided upon request.

http://www.waterboards.ca.gov/public\_notices/petitions/water\_quality

## ATTACHMENTS

Attachment A—Site Location Map

Attachment B—Flow Schematic

Information Sheet

Standard Provisions and Reporting Requirements (SPRRs), dated 1 March 1991

Monitoring and Reporting Program R5-2022-0026



## ATTACHMENT A—SITE LOCATION MAP



## ATTACHMENT B—FLOW SCHEMATIC

## CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

## WASTE DISCHARGE REQUIREMENTS ORDER R5-2022-0026 FOR CITY OF FARMERSVILLE FARMERSVILLE WASTEWATER TREATMENT FACILITY TULARE COUNTY

## **INFORMATION SHEET**

## BACKGROUND

Waste Discharge Requirements (WDRs) Order 86-152 authorizes a discharge of up to 1.25 million gallons per day (mgd) of undisinfected secondary wastewater from the City of Farmersville (City or Discharger) Wastewater Treatment Facility (WWTF) to eight evaporation/percolation ponds and 140 acres of farmland owned by Jack Hesse. Wastewater Reclamation Requirements Order 84-128 was issued for the reclamation of wastewater from the WWTF on 140 acres of prunes and walnuts owned by Mr. Hesse. The City reportedly never reclaimed its effluent on the 140 acres. On 16 November 2020, the City submitted a Report of Waste Discharge for a new WWTF to replace the existing WWTF. The new WWTF has a design treatment capacity of 1.4 mgd. On 12 October 2012 and 29 October 2013, the City filed a draft Mitigated Negative Declaration and Notice of Determination, respectively, for the proposed project.

## WASTEWATER GENERATION AND DISPOSAL

The new WWTF consists of one extended aeration activated sludge basin with anoxic zone and three treatment lanes, two 50-foot diameter secondary clarifiers, an aerobic digester, a sludge holding tank, a gravity belt thickener (mechanical dewatering), and four concrete lined sludge drying beds. The treated wastewater will be discharged to ten existing evaporation/percolation ponds as described in the Findings.

#### **GROUNDWATER CONSIDERATIONS**

Groundwater conditions are discussed in Findings 26 through 34 of the Order.

The Discharger installed new monitoring wells at the WWTF in 2019. Regional groundwater is of good quality with respect to iron and manganese. The November 2020 RWD attributes the elevated concentrations of iron and manganese in groundwater below the WWTF to the historic discharge of high organics from the WWTF. The upgraded WWTF provides significantly higher levels of organic removal. The improved effluent quality should result in improved groundwater conditions, with regards to iron and manganese. The Monitoring and Reporting Program (MRP) requires regular groundwater monitoring for iron and manganese.

#### ANTIDEGRADATION

State Water Board Resolution 68-16 (Antidegradation Policy), which is incorporated as part of the Basin Plan, prohibits the Central Valley Water Board from authorizing degradation of "high quality waters" unless it is shown that such degradation: (1) will not unreasonably affect beneficial uses, or otherwise result in water quality less than as prescribed in applicable policies; (2) will be consistent with the maximum benefit to the people of the State; and (3) is minimized through the discharger's best practicable treatment or control (BPTC).

Antidegradation analysis and conclusions are discussed in Findings 54 through 60 of the Order.

# DISCHARGE PROHIBITIONS, LIMITATIONS, DISCHARGE SPECIFICATIONS, AND PROVISIONS

The proposed Order prohibits the discharge of waste to surface water and to surface water drainage courses. This Order includes a flow limit of 1.40 mgd and sets an effluent limit for 5-day biochemical oxygen demand and total suspended solids of 40 mg/L as a monthly average and 80 mg/L as a daily maximum. For salinity, this Order sets an effluent Salinity Action Level of 700  $\mu$ mhos/cm. This Order also prescribes groundwater limitations that ensure the discharge does not affect present and anticipated beneficial use of groundwater.

#### MONITORING REQUIREMENTS

Section 13267 of the California Water Code authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impacts of waste discharges on waters of the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate. The Order includes influent, effluent, pond, source water, groundwater, and sludge/biosolids monitoring requirements. This monitoring is necessary to characterize the discharge and evaluate compliance with the requirements and specifications in the Order.

#### SALT AND NITRATE CONTROL PROGRAMS REGULATORY CONSIDERATIONS

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Resources Control Board adopted Resolution No. 2019-0057 approving the Central Valley Water Board Basin Plan amendments and also directed the Central Valley Water Board to make targeted revisions to the Basin Plan amendments by the Office of Administrative Law. The Office of Administrative Law approved the Basin Plan amendments on 15 January 2020 (OAL Matter No. 2019-1203-03).

On 5 January 2021, the Central Valley Water Board issued the Discharger a Notice to Comply for the Salt Control Program (CV-SALTS ID: 2663). On 28 February 2021, the Central Valley Water Board received a Salt Control Program Notice of Intent stating the City chosen to participate in the P&O Study.

On 29 May 2020, the Central Valley Water Board issued the Discharger a Notice to Comply for the Nitrate Control Program. In response, the City chosen to be a participant in the Kaweah Management Zone.

#### REOPENER

The conditions of discharge in the 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. The Order sets limitations based on the information provided thus far. If applicable laws and regulations change, or once new information is obtained that will change the overall discharge and its potential to impact groundwater, it may be appropriate to reopen the Order.

# LEGAL EFFECT OF RESCISSION OF PRIOR WDRS OR ORDERS ON EXISTING VIOLATIONS

The Central Valley Water 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 action to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.