

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2018-_____

REVISED WASTE DISCHARGE REQUIREMENTS

FOR
RIVERDALE PUBLIC UTILITIES DISTRICT
WASTEWATER TREATMENT FACILITY
FRESNO COUNTY

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

1. On 24 January 2017, the Riverdale Public Utilities District (hereafter "District" or "Discharger") submitted a Report of Waste Discharge (RWD), an Antidegradation Analysis, and a Preliminary Engineering Report (three documents) describing the District's existing wastewater treatment facility (WWTF) and the proposed upgrades to the treatment and disposal capacities of the WWTF.
2. The current discharge from the WWTF is regulated by Waste Discharge Requirements (WDRs) Order 85-252, adopted by the Central Valley Water Board on 27 September 1985. Order 85-282 allows an average dry weather flow of up to 0.25 million gallons per day (mgd). The District owns and operates the WWTF and is responsible for compliance with these WDRs.
3. The WWTF is about a mile north of the community of Riverdale, northeast of the intersection of South Brawley and West Harlan Avenues as shown on Attachment A, which is attached hereto and made part of this Order by reference. The existing WWTF, percolation/evaporation ponds, and land application areas are in Assessor's Parcel Number (APN) 053-090-11. The WWTF is in the northwest quarter of Section 13, T17S, R19E, MDB&M, of the United States Geological Service (USGS) Riverdale 7.5 minute topographic map.
4. The Discharger proposes to expand and upgrade the WWTF in two phases to increase capacity to accommodate the anticipated growth of the community of Riverdale in the future. Therefore, Order 85-282 will be rescinded and replaced with this Order.

Existing Facility and Discharge

5. Census population data for 2010 indicates the community of Riverdale had a population of 3,153. The RWD indicates the District currently serves 923 sewer services, of which 864 are residential, 47 are commercial businesses, nine are churches or libraries, and three are schools. There are no significant industrial users.
6. The existing WWTF is an aerated lagoon system designed to remove biochemical oxygen demand (BOD) and total suspended solids (TSS). Raw wastewater or influent enters at the headworks where it passes through a comminutor, prior to

being discharged to an unlined complete-mix aerated lagoon. From the complete-mix aerated lagoon, the effluent is discharged to one of six unlined oxidation lagoons where the effluent percolates into the underlying soil/substrate and/or evaporates.

- Influent flows are primarily from residential users, but there are some commercial and institutional connections. The existing Monitoring and Reporting Program (MRP) doesn't require influent monitoring, but the Discharger analyzed the influent for a select list of constituents on two consecutive days in May 2016 as summarized in the following table. The results are from six samples, three collected on 25 May 2016 and three collected on 26 May 2016. The first number listed is the average and the range of detections is shown below in parentheses.

Table 1 – Influent Results

<u>Constituents</u> ¹	<u>Units</u> ²	<u>Result</u>
Alkalinity as CaCO ₃ and Bicarbonate as CaCO ₃	mg/L	427 (410 - 440)
Biochemical Oxygen Demand	mg/L	105 (71 - 170)
Total Kjeldahl Nitrogen	mg/L	45 (42 - 51)
Total Settleable Solids	mg/L	130 (110 – 160)

- CaCO₃ = Calcium carbonate.
- mg/L = milligrams per liter.

- The average discharge in 2016 was 0.21 mgd, or 88 percent of the permitted capacity. The WDRs requires a limited effluent monitoring program for flow, BOD, dissolved oxygen (DO), settleable solids, and electrical conductivity (EC). The EC results are from weekly samples collected and analyzed from January 2016 through November 2017, while the BOD results are from monthly samples collected and analyzed over the same time period. The 12-month rolling average for EC is calculated from June 2016 through November 2017. The results are summarized in the following table.

Table 2 – Effluent Results

<u>Constituent</u>	<u>Units</u> ¹	<u>Result</u>
Biochemical Oxygen Demand	mg/L	94 (28 - 180)
Electrical Conductivity (EC)	umhos/cm	1,461 (1,016 - 2,035)
12-Month Rolling EC average	umhos/cm	1,469

- mg/L = milligrams per liter, umhos/cm = micromhos per centimeter.

- The elevated EC results in effluent are due to the elevated EC levels of the source water. The EC of the effluent exceeds even the upper recommended maximum

contaminant level (MCL) of 1,600 micromhos per centimeter (umhos/cm) during the summer months. The EC of the source water is reported to be about 1,200 umhos/cm, and if the Tulare Lake Basin Plan EC limit of 500 umhos/cm plus the EC of the source water is used, the resulting limit would be 1,700 umhos/cm. The 12-month rolling EC average of 1,440 umhos/cm would meet the limit.

10. WDRs 85-252 contain BOD effluent limits of 40 mg/L for the 30-day average and an 80 mg/L daily maximum. Since January 2016 the BOD effluent results have met the daily average of 40 mg/L only twice in 23 samples. The results since January 2016 were in excess of the daily average of 40 mg/L in 21 of 23 samples and were in excess of the daily maximum of 80 mg/L in 15 of the 23 monthly samples.
11. Due to the data set being limited to only a few constituents, Central Valley Water Board staff collected a sample from the effluent discharge location on 25 May 2017. The results of the sampling is summarized in the following table.

Table 3 – May 2017 Effluent Results

<u>Constituent</u>	<u>Units¹</u>	<u>Result</u>
Nitrite as Nitrogen	mg/L	2.4
Nitrate as Nitrogen	mg/L	0.17
Total Kjeldahl Nitrogen	mg/L	25
Electrical Conductivity	umhos/cm	1700
Total Dissolved Solids	mg/L	970
Alkalinity	mg/L	410
Bicarbonate	mg/L	470
Boron	ug/L	6.8
Calcium	mg/L	9.6
Carbonate	mg/L	15
Chloride	mg/L	280
Magnesium	mg/L	2.2
Potassium	mg/L	16
Sodium	mg/L	360
Sulfate	mg/L	20

1. mg/L = milligrams per liter; umhos/cm = micromhos per centimeter; ug/L = micrograms per centimeter.

The results are from only one sample, but the total nitrogen concentration of 25 mg/L is about half of what was estimated in the RWD. The EC and TDS are elevated, but are in line with the effluent concentrations presented in the RWD and are due to the elevated EC and TDS in the District's source water. The RWD indicated chloride would be about 250 mg/L, so a one-time sample with a result of 280 mg/L is in line with the estimate, but the result exceeds the Secondary MCL of 250 mg/L.

12. WDRs Order 85-252 also allowed for the recycling of effluent to about 32 acres of adjacent pasture land for cattle grazing. It is listed as 36 acres in WDRs Order 85-252, but currently measures about 32 acres. Effluent is and has been routinely discharged to this area via flood irrigation, but it's not clear when or how often cattle were actually on the pasture area for grazing. Provost and Pritchard, the Dischargers consultant provided the following information. *"The District previously had a grazing agreement, which allowed cattle to enter the District's property for grazing. The pasture was very sparse and heavily compacted due to the cattle grazing activity. The District has since discontinued the grazing agreement and deep-ripped the reclamation area to restore percolation and vegetation."*
13. The discharge still typically pools in the central portion of the land application area and standing water is routine. Notices of violation were issued in 2001, 2002, and 2003 due to complaints from the Consolidated Mosquito Abatement District staff that the District's discharge to the land application area was resulting in standing water/effluent in the land application area and creating nuisance issues (i.e., mosquitoes). Standing water was observed in the land application area during the May 2017 inspection, but it had just rained prior to the inspection and 2017 was a very wet winter. No violation was issued due to the likelihood the standing water was rain water.

Planned Changes to the WWTF and Discharge

14. The RWD estimates growth over the next 20 years and proposes increasing the treatment capacity in two phases. The first phase would increase the treatment and disposal capacity to 0.275 mgd and the second phase would increase the treatment and disposal capacity to 0.325 mgd in about ten years. This Order includes Provisions G.12 and G.13 that requires the District submit technical reports that demonstrate the upgrades to the WWTF have been completed as designed. To accommodate the proposed upgrade/expansion of the WWTF, the District has purchased a 40-acre parcel (APN 053-090-36), which is west and directly adjacent the existing WWTF as shown on Attachment B, which is attached hereto and made part of this Order by reference. Due to the presence of a remnant of the Van Ness Slough, of the 40 acres that comprise the new land, about 33 acres is available for use.
15. All of the wastewater generated by the community of Riverdale passes through a recently constructed lift station that is just north of the intersection of Valentine Avenue and Stathem Street. The new lift station includes two new lift pumps capable of providing flows up to 420 gallons per minute each, with room for the installation of a third pump. The existing force main is a 10-inch main installed in 1958 and constructed of asbestos pipe. Its condition is unknown and it will be replaced with an 8-inch or 10-inch force main constructed of either polyvinyl chloride or high density polyethylene pipe.

16. A new headworks will be constructed and designed based on the estimated flows of 0.325 mgd. It will have self-cleaning screens and a bypass channel with a manual bar screen. A new influent flow meter will be installed to measure the volume discharged to the WWTF.
17. The new treatment system will consist of three, high-density polyethylene single-wall lined aeration ponds (one complete mix pond and two partial mix ponds). All three ponds will be active and operated in series. All of the ponds will be equipped with aerators, the complete mix pond will have a surface area of about 0.3 of an acre and will have a capacity of about 0.8 million gallons. The partial mix ponds will have a surface area of about 1-acre and a capacity of about 2.4 million gallons.
18. Effluent will be discharged to a series of new disposal (evaporation/percolation) ponds installed in two phases. Some of the existing treatment ponds will be converted to disposal ponds. The first phase will allow for the disposal of up to 0.275 mgd (76 percent of the current flow) and will include the construction of approximately 21.7 acres of new disposal (evaporation/percolation) ponds. This will increase the total volume of the disposal ponds to about 96 acre-feet (31.5 million gallons). Phase two will allow for the disposal of up to 0.325 mgd (64 percent of the current flow) and will provide another 4.6 acres of disposal ponds and increase the total volume of the disposal ponds to about 115 acre-feet (37.5 million gallons). The recycling of effluent to the former land application areas will be discontinued due to the standing water issues and that the Discharger could not find any nearby farmers that wanted to use the effluent for irrigation on their land as discussed in Finding 54.
19. The RWD estimates the quality of the effluent that will be produced by the new WWTF and those values are summarized in the table below.

Table 4 – Estimated Effluent Quality

<u>Constituent</u>	<u>Units</u> ¹	<u>Result</u>
Biochemical Oxygen Demand	mg/L	30
Total Suspended Solids	mg/L	30
Total Dissolved Solids	mg/L	900
Electrical Conductivity	umhos/cm	1540
Total Kjeldahl Nitrogen	mg/L	45
pH	pH Units	6.5 – 8.5
Chloride	mg/L	250
Sodium	mg/L	250
Arsenic	ug/L	6

1. mg/L = milligrams per liter; umhos/cm = micromhos per centimeter; ug/L = micrograms per liter.

Site-Specific Conditions

20. The topography in the vicinity of the WWTF is generally flat with a very slight slope (< 0.2 percent) to the west/southwest. The elevation at the WWTF is about 215 feet above mean sea level.

21. The nearest surface water is the Little Millrace Ditch, owned and operated by the Liberty Millrace Irrigation District, which flows from east to west along the southern property boundary of the WWTF. The proposed improvement area will be graded to keep any surface water runoff onsite and out of the ditch. The North Fork of the Kings River is about 4.5 miles south of the WWTF.
22. Historically, the Van Ness Slough was present on the existing WWTF property. It extended southwest from about 450 feet south of the northeast corner of the WWTF to about 350 feet north of the southwest corner of the current WWTF property.
23. The current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 06019C2900J, revised 20 January 2016 indicates the WWTF, the treatment ponds, and the evaporation/percolation ponds are not shown as being within a 100-year return flood area.
24. Soils in the area of the WWTF and the existing evaporation/percolation ponds/pasture lands consist almost entirely of the Chino loam (saline-alkali) according to the Web Soil Survey published by the United States Department of Agriculture Natural Resources Conservation Service. The Chino loam is described as somewhat poorly drained and has a land capability classification of 2s. Soils with a Class 2 rating have moderate limitations that reduce the choice of plants or that require moderate conservation practices, or both. The subclass "s" shows that the soil may be limited mainly because it is shallow, droughty, or stony.
25. The WWTF is in an arid climate characterized by dry summers and mild winters. The rainy season generally extends from November through April. Average annual pan evaporation in the area is about 66 inches, according to DWR Bulletin No. 113-3. The average annual precipitation in the discharge area is about 11 inches. The 100-year return period wet year precipitation is about 21 inches, according to DWR Bulletin No. 95.
26. Land uses in the vicinity of the WWTF are primarily agricultural, with some rural residential properties present. The northern edge the community of Riverdale is about a mile south of the WWTF. Several confined animal facilities were observed by Central Valley Water Board staff in the vicinity of the WWTF, with the nearest being a poultry operation that is directly north of the WWTF. Review of recent aerial photographs (April 2015) shows what appear to be nine confined animal facilities within a five mile radius of the WWTF. The RWD identifies crops grown in the area to include alfalfa, almonds, walnuts, pistachios, grapes, and corn, and grain/hay/fodder crops.

Groundwater Conditions

27. Groundwater in the area of the Riverdale WWTF is contained in two primary aquifers. An unconfined aquifer is present above the E-Clay or Corcoran Clay. The E-Clay is reported to be at about 450 feet below the ground surface (bgs) beneath the WWTF and is about 80 to 100 feet thick. Below the E-Clay, the aquifer is

generally confined. According to information presented in the RWD and the Department of Water Resources (Tulare Lake Groundwater Basin, Spring 2010, Lines of Equal Depth to Water in Wells, Unconfined Aquifer), the general direction of groundwater flow in the unconfined aquifer is to the west/southwest.

28. The exact depth to first encountered groundwater beneath the WWTF is unknown, but some information was included in Antidegradation Report submitted along with the RWD and regional information from the Department of Water and Resources (DWR) is also available. Depth to groundwater is addressed in the Antidegradation Report that indicates the depth to water has dropped 100 feet since 2010 and is at about 240 feet bgs. The District indicates they just installed a new supply well and groundwater was encountered at a depth of 240 feet bgs. The DWR has groundwater information (*Tulare Lake Groundwater Basin, Spring 2010, Lines of Equal Depth to Water in Wells, Unconfined Aquifer*) and the depth to water in the spring of 2010 is shown as being about 170 feet bgs.
29. The existing WDRs do not require groundwater monitoring, but groundwater data from the District’s supply wells, installed both above and below the E-Clay, was presented in the RWD. Source water was provided by Well 6 that is screened below the E-Clay. A new well (Well No. 7) was just installed below the E-Clay in May 2017. Previous supply wells (Wells No. 4 and 5) were installed above the E Clay. The data for Well No. 6 is from one sample collected on 2 March 2015. The Well 7 results are from one sample collected when Well 7 was developed. The data from Well Nos. 4 and 5 are from an unknown number of samples collected from 2000 to 2014. The results for the current and former supply wells are summarized in the following table.

Table 5 – Supply Well Results

<u>Constituent</u>	<u>Units</u> ¹	<u>MCL</u> ²	<u>Well 4</u>	<u>Well 5</u>	<u>Well 6</u>	<u>Well 7</u>
Electrical Conductivity	umhos/cm	900/1,600/2,200	644	621	1,100	1,200
Total Dissolved Solids	mg/L	500/1,000/1,500	397	378	610	660
Nitrate as Nitrogen	mg/L	10	0.13	0.15	nd	0.23
Chloride	mg/L	250/500/600	---	---	180	200
Sodium	mg/L	none	---	---	250	260
Alkalinity	mg/L	none	---	---	290	300
Bicarbonate	mg/L	none	---	---	310	270
Arsenic	ug/L	10	36	37	6	4.9

1. umhos/cm = micromhos per centimeter; mg/L = milligrams per liter; ug/L = micrograms per liter.

2. MCL = Maximum contaminant level. The MCLs for chloride, electrical conductivity, and total dissolved solids are Secondary MCLs and the values shown represent the lower, upper, and short term recommended MCLs. The MCLs for nitrate and arsenic are Primary MCLs and have only one limit listed.

30. Wells Nos. 4 and 5 above the E-Clay have lower EC results, but they have elevated arsenic concentrations that are more than three times the Primary MCL of 10 micrograms per liter (ug/L). Wells 6 and 7 are set below the E-Clay and have arsenic results that meet the MCL of 10 ug/L, but EC and TDS results are in excess of the Secondary Recommended MCL of 900 umhos/cm for EC and 500 mg/L for

TDS. The results for chloride are typically less than the Secondary Recommended MCL of 250 mg/L. While the EC and TDS are typically in excess of their Secondary MCL of 900 umhos/cm and 500 mg/L, respectively (as discussed in Finding 33 below and in the Antidegradation section of these WDRs), the available groundwater data in the area indicates a wide range of detections both above and below applicable MCLs for EC and TDS. Values in excess of corresponding MCLs since 1955 indicate the underlying groundwater is not of good quality with respect to these constituents.

31. The salinity being higher in the deeper well set below the E-Clay is not typical for most of the southern San Joaquin Valley, but the USGS does provide information for increasing salinity in various areas of the region. Staff from Provost and Pritchard consulting were asked to address the differing water quality with depth in the existing supply wells and provided a review in a 2 January 2018 letter to Central Valley Water Board staff. The 2 January 2018 letter notes that the area is the result of a series of complex geologic events that included inundation by salt water on several occasions. The result is fluvial continental sediments are interbedded with marine sediments, which contributes to the increased salinity in various areas of the valley. EC values recorded during the development of Well No. 7 ranged from 1,100 umhos/cm at about 1,500 feet bgs to 1,300 at a depth of about 2,000 feet bgs.
32. Groundwater quality is addressed in the Antidegradation Analysis, which included a review of the background or “natural” groundwater quality within 5-miles of the WWTF. To assess historical groundwater quality, Provost and Pritchard reviewed a 1969 document distributed by the USGS entitled “*Geology, Hydrogeology, and Water Quality in the Fresno Area.*” The conclusion is, that due to the spatial variability of the results, it is difficult to assess what the past historical groundwater quality was outside of posting the average and the range of the results they found. The Antidegradation Report indicates that the water quality decreases from the east to the west towards the ancestral Tulare Lake Bed. The RWD included regional groundwater quality results within a five mile radius of the WWTF that are summarized in the following table.

Table 6 – Regional Groundwater Quality - RWD

<u>Constituent</u>	<u>Units¹</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Average</u>
Electrical Conductivity	umhos/cm	130	1,660	761
Total Dissolved Solids	mg/L	91	1,040	405
Nitrate as Nitrogen	mg/L	0.0	1.5	0.6

1. umhos/cm = micromhos per centimeter, mg/L = milligrams per liter.

33. Regional Water Quality data is also found at the USGS Water Quality Data Portal website online. Using a 5-mile radius from the existing WWTF located 14 wells ranging in depth from 48 to 510 feet bgs, all above the E-Clay. The data spans from June 1955 to July 2002. The results from the USGS Water Quality Data Portal are nearly identical to those included in the RWD and show that groundwater in the

area has had EC and TDS values in excess of the upper recommended MCLs for both constituents dating as far back as 1955. Nitrate as nitrogen was not detected above the MCL of 10 mg/L and total nitrogen ranged from non-detect to 13 mg/L. The USGS data contained arsenic results from six wells and two had arsenic greater than the MCL of 10 micrograms per liter (ug/L). The data does illustrate the spatial differences in concentrations with a wide range between the minimum and maximum detections as indicated in the RWD, and it also substantiates that the water quality decreases as one moves from east to west towards the Valley Floor and the ancestral Tulare Lake Bed.

Basin Plan, Beneficial Uses, and Regulatory Considerations

34. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised July 2016* (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board (State Water Board). Pursuant to California Water Code section 13263(a), waste discharge requirements must implement the Basin Plan.
35. The WWTF and land application areas are in the Lower Kings River Hydrologic Area (No. 551.80) of the South Valley Floor Hydrologic Unit, as depicted on hydrologic maps prepared by State Water Board in August 1986. The discharge will be to evaporation/percolation ponds, where drainage is expected to be contained onsite. Natural surface drainage is by sheet flow to Little Millrace Ditch, which is fed by the North Fork of the Kings River. The designated beneficial uses of the Kings River (Peoples Weir to Stinson Weir on North Fork and to Empire Weir II on South Fork) are agricultural supply; water contact and non-contact water recreation; wildlife and warm freshwater habitat; and groundwater recharge.
36. The beneficial uses of underlying groundwater as set forth in the Basin Plan are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
37. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.
38. The Basin Plan's numeric water quality objective for bacteria requires that the most probable number (MPN) of coliform organisms over any seven-day period shall be less than 2.2 per 100 mL in MUN groundwater.
39. The Basin Plan's narrative water quality objectives for chemical constituents, at a minimum, require waters designated as domestic or municipal supply to meet the MCLs specified in Title 22 of the California Code of Regulations (hereafter Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits

more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.

40. The narrative toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.
41. 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.
42. In the absence of specific numerical water quality limits, the Basin Plan methodology is to consider any relevant published criteria. General salt tolerance guidelines, such as *Water Quality for Agriculture* by Ayers and Westcot and similar references indicate that yield reductions in nearly all crops are not evident when irrigation water has an EC less than 700 $\mu\text{mhos/cm}$. There is, however, an eight- to ten-fold range in salt tolerance for agricultural crops and the appropriate salinity values to protect agriculture in the Central Valley are considered on a case-by-case basis. It is possible to achieve full yield potential with waters having EC up to 3,000 $\mu\text{mhos/cm}$ if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop.

Special Considerations for Salt and Nitrate Discharges

43. Many surface waters and local groundwater supplies have been degraded with salt. In some areas, the high salinity is naturally occurring, but in many areas it is due to the acts of man. In 2006, the Central Valley Water Board, the State Water Board, and stakeholders began a joint effort to address salinity and nitrate problems in the region and adopt long-term solutions that will lead to enhanced water quality and economic sustainability.
44. 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:
 - Alter the way the Board calculates available assimilative capacity for nitrate, which could result in new or modified requirements for nitrate management;
 - Require dischargers to implement actions identified under an interim salinity permitting approach; and/or

- 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.

45. 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.
46. The list of crops in Finding 26 is not intended as a definitive inventory of crops that are or could be grown in the area where groundwater quality is potentially affected by the discharge, but it is representative of current and historical agricultural practices in the area.

Antidegradation Analysis

47. The *Statement of Policy With Respect to Maintaining High Quality of Waters in California*, State Water Board Order WQ 68-16 (hereinafter "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 (SWRCB Order No. WQ 91-10.).
48. 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, the Antidegradation Policy does not apply, and the Discharger need only demonstrate that it will use "best efforts" to control the discharge of waste.
49. Constituents of concern that have the potential to degrade groundwater include salts (primarily EC and TDS), nutrients, and chloride as discussed below.
 - a. **Salinity (TDS and EC).** The average EC and TDS concentration in the effluent exceed the respective Secondary MCLs due to the concentrations of EC and TDS in the source water (~ 1,200 umhos/cm for EC and 660 mg/L for TDS). With

a 12-month rolling average of the effluent of about 1,450 umhos/cm the discharge could degrade the underlying groundwater with respect to EC, but the values will remain within the water quality objectives for EC. TDS is similar in that the anticipated TDS concentration of the effluent at 900 mg/L is higher than the TDS of the source water at 610 mg/L. If an EC limit is established using the EC of the source water plus 500 umhos/cm (~1,700 umhos/cm), then the discharge calculated on a 12-month rolling average (~1,450 umhos/cm) would meet the limit. Regional groundwater results from the USGS Water Quality Data Portal indicate both EC and TDS have been reported at higher concentrations in the first encountered groundwater dating back to 1955. The data suggest that elevated salinity constituents have been present in the first encountered groundwater for over 60 years. While the elevated salinity constituents do not seem related to the operation of the WWTF, this Order still includes Provision G.14 that requires the District to develop and submit a Salinity Management Plan to evaluate sources of salt in its discharge.

b. Nitrate. For nutrients such as nitrate, the potential for degradation depends not only on the quality of the treated effluent, but the ability of the vadose zone below the effluent disposal ponds to provide an environment conducive to nitrification and denitrification to convert the effluent nitrogen to nitrate and the nitrate to nitrogen gas before it reaches the water table. The effluent total nitrogen concentration was 25 mg/L in a May 2017 sample, but was estimated in the RWD to average about 45 mg/L. Total nitrogen in regional groundwater wells averages about 5.0 mg/L. Based on the effluent results and the regional groundwater results, the discharge may degrade groundwater quality due to increased total nitrogen, but regional wells do not indicate an issue with total nitrogen or nitrate as nitrogen.

c. Chloride. For chloride, the May 2017 effluent sample was reported to be 280 mg/L. The source water is the issue with the results from supply wells numbers 6 and 7 being 180 and 200 mg/L, respectively. The Tulare Lake Basin Plan (Second Edition, July 2016) states that "*Discharges to areas that may recharge to good quality ground waters shall not exceed and EC of 1,000 umhos/cm, a chloride content of 175 mg/L, or a boron content of 1.0 mg/L.*" The source water is not of good quality and as such, the Basin Plan limit of 175 mg/L does not apply. Still, to ensure the Discharger is addressing the salinity of its discharge, this Order includes Provision G.14 that requires the Discharger to prepare and submit a salinity management plan.

50. This Order establishes effluent and groundwater limitations for the WWTF that will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan. This Order also contains Provision G.15 that requires the Discharger to submit a Work Plan to evaluate the quality of the groundwater in the vicinity of the WWTF.

51. The proposed WWTF will provide treatment and control of the discharge that incorporates:
- a. Secondary treatment of wastewater;
 - b. Lined treatment ponds to limit the amount of untreated wastewater that percolates to groundwater;
 - c. Aeration of wastewater to reduce the BOD of the effluent;
 - d. Certified operators to ensure proper operation and maintenance;
 - e. An operation and maintenance manual;
 - f. Source water, influent, pond, and effluent monitoring;
 - g. A Salinity Management Plan to identify and reduce the salt load of the discharge, particularly chloride; and
 - h. A work plan to evaluate the quality of the groundwater in the vicinity of the WWTF.
52. 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 technology, energy, and waste management advantages of municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impacts on water quality will be substantially less. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State, and therefore sufficient reason to accommodate growth and some groundwater degradation provided terms of the Basin Plan are met. The degradation will not unreasonably affect present and anticipated beneficial uses of groundwater, or result in water quality less than water quality objectives.

Water Recycling Regulatory Considerations

53. Undisinfected domestic wastewater contains human pathogens that are typically measured using total or fecal coliform organism as indicator organisms. The State Water Board Division of Drinking Water (formerly the California Department of Public Health Drinking Water Program), which has primary statewide responsibility for protecting water quality and the public health, has established statewide criteria in Title 22, section 60301 et seq. for the use of recycled water.
54. On 3 February 2009, the State Water Board adopted Resolution 2009-0011, *Adoption of a Policy for Water Quality Control for Recycled Water* (Recycled Water Policy). The Recycled Water Policy promotes the use of recycled water to achieve sustainable local water supplies and reduce greenhouse gases.
55. The Discharger circulated a 29 November 2016 letter to adjacent property owners that grow alfalfa, hay, or fodder crops within a mile of the WWTF to evaluate

possible interest in using undisinfected secondary treated wastewater for recycling. One property owner responded that they were interested, but wanted to use District land as well as the wastewater. Considering the issue with standing water in the land application areas in the past, recycling water to the same lands would likely result in standing water that may again create nuisance conditions.

Other Regulatory Considerations

56. In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.
57. Based on the threat and complexity of the discharge, the facility is determined to be classified as 2B as defined below:
 - a. Category 2 threat to water quality: "Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance."
 - b. Category B complexity, defined as: "Any discharger not included [as Category A] that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal) or any Class 2 or Class 3 waste management units."
58. 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. The exemption, found at 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 RWQCB has issued WDRs, reclamation requirements, or waived such issuance;
- (2) the discharge is in compliance with the applicable water quality control plan; and
- (3) the wastewater does not need to be managed according to Chapter 11, Division 4.5, Title 22 of this code as a hazardous waste.

59. The discharge authorized herein (except for the discharge of 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 three proposed lined treatment ponds are exempt pursuant to Title 27, section 20090(a) because they are treatment and storage facilities associated with a municipal domestic wastewater treatment facility.
- b. The proposed evaporation/percolation ponds (21.7 acres in Phase 1, 4.6 additional acres in phase 2) will be exempt pursuant to Title 27, section 20090(b) because they are wastewater evaporation/percolation 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 ponds does not need to be managed as hazardous waste.

60. The Discharger is not required to obtain coverage under a National Pollutant Discharge Elimination System General Industrial Storm Water Permit for the WWTF because all storm water runoff is retained onsite and does not discharge to a water of the United States.

61. On 2 May 2006, the State Water Board adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems General Order 2006-0003-DWQ (the General Order). The General Order requires all public agencies that own or operate sanitary sewer systems greater than one mile in length to comply with the Order. The Discharger's collection system exceeds one mile in length and the Discharger is enrolled under the General Order.

62. Water Code section 13267(b)(1) states:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the regional board

shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

63. The technical reports required by this Order and the attached Monitoring and Reporting Program R5-2018-_____ are necessary to ensure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.
64. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards), as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 74-81* (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to Water Code section 13801, apply to all monitoring wells used to monitor the impacts of wastewater storage or disposal governed by this Order.
65. A Mitigated Negative Declaration was certified by the District on 3 October 2017 in accordance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Mitigated Negative Declaration describes the WWTF as currently operating at 88% of the design treatment capacity and is in need of expansion. The improvement and expansion of the District's WWTF will allow for 0.325 MGD design capacity, to serve the growing service needs of the unincorporated community of Riverdale.
66. The Mitigated Negative Declaration evaluated the potential impacts to groundwater quality and found that compliance with WDRs will ensure that impacts to water quality would be less than significant. Compliance with this Order will mitigate or avoid significant impacts to water quality.
67. The United States Environmental Protection Agency (EPA) has promulgated biosolids reuse regulations in 40 CFR 503, *Standards for the Use or Disposal of Sewage Sludge*, which establishes management criteria for protection of ground and surface waters, sets application rates for heavy metals, and establishes stabilization and disinfection criteria.
68. The Central Valley Water Board is using the standards in 40 CFR 503 as guidelines in establishing this Order, but the Central Valley Water Board is not the implementing agency for 40 CFR 503 regulations. The Discharger may have separate and/or additional compliance, reporting, and permitting responsibilities to the EPA.
69. 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

70. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.
71. The Discharger and interested agencies and persons have been notified of the Central Valley Water Board's intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity to submit written comments and an opportunity for a public hearing.
72. All comments pertaining to the discharge were heard and considered in a public hearing.

IT IS HEREBY ORDERED that Waste Discharge Requirements Order 85-252 is rescinded and, that the Riverdale Public Utilities District, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted hereunder, shall comply with the following:

A. Discharge Prohibitions

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, title 22, section 66261.1 et seq., is prohibited.
3. 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 waste at a location or in a manner different from that described in the Findings is prohibited.
5. The Discharger shall not allow toxic substances to be discharged into the wastewater treatment system such that biological treatment mechanisms are disrupted.

B. Flow Limitations

1. The monthly average discharge flow shall not exceed:
 - a. **0.250 mgd** until Phase 1 of the WWTF expansion is complete;
 - b. **0.275 mgd** once Phase 1 is complete and Provision G.12 is satisfied; and
 - c. **0.325 mgd** once Phase 2 is complete and Provision G.13 is satisfied.

C. Effluent Limitations

1. The effluent discharge to the evaporation/percolation ponds shall not exceed the following limitations:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
BOD	mg/L	40	80
TSS	mg/L	40	80

2. The arithmetic mean of BOD and TSS in effluent samples collected over a monthly period shall not exceed 20 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period (80 percent removal).
3. The 12-month rolling average EC of the discharge shall not exceed the 12-month rolling average EC of the source water plus 500 umhos/cm or a maximum of 1,600 umhos/cm, whichever is more stringent. The flow-weighted average of the effluent shall be a moving average for the most recent 12 months. When the source water is from more than one source, the EC shall be a flow weighted average of all sources.

D. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will cause a violation of the Groundwater Limitations of this Order.
2. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.
3. The discharge shall remain within the permitted waste treatment/containment structures and percolation/evaporation ponds 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 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 prevented through such means as fences, signs, or acceptable alternatives.
7. Objectionable odors as a result of the operation of the WWTF 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 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 in each pond a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.
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 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, 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.
13. 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.

14. The Discharger shall monitor sludge accumulation in the wastewater treatment/storage ponds at least every five years beginning in 2019, and shall periodically remove sludge as necessary to maintain adequate storage capacity.

E. Groundwater Limitations

Release of waste constituents from any portion of the WWTF 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 Disposal Specifications

Sludge, as used in this document, means the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes. Solid waste refers to grit and screenings 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 a 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 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 six months) 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, 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.

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 2004-12-DWQ, "General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities"). For a biosolids use project to be covered by Order 2004-12-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 MRP R5-2018-XXXX, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer.
2. The Discharger shall comply with the Standard Provisions and Reporting Requirements for Waste Discharge Requirements, dated 1 March 1991 (Standard Provisions), which are attached hereto and made part of this Order.
3. 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.
4. 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.

5. All technical reports and work plans required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of a person registered to practice in California pursuant to California Business and Professions Code Sections 6735, 7835, and 7835.1. As required by these laws, completed technical reports and work plans must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work. All reports required herein are required pursuant to Water Code section 13267.
6. The Discharger shall 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. 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.
8. 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.
9. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.

10. As described in the Standard Provisions, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.
11. The Discharger shall provide certified wastewater treatment plant operators in accordance with CCR, Title 23, division 3, chapter 26.
12. **Upon completion of Phase 1 of the upgraded WWTF and prior to operation of the upgraded WWTF**, the Discharger shall submit, for Executive Officer approval, a technical report in the form of an engineering report and certification that demonstrate that the Phase 1 upgrades to the WWTF have been completed as designed. Upon approval of the Phase 1 engineering report, the Discharger shall comply with WDRs Order R5-2018-____, Flow Limitations B.1.b, and may increase the discharge from the WWTF to **0.275 mgd**.
13. **Upon completion of the Phase 2 of construction of the upgraded WWTF and prior to increasing the flow to 0.325 mgd**, the Discharger shall submit, for Executive Officer approval, a technical report in the form of an engineering report and certification that demonstrate that the Phase 2 upgrades to the WWTF have been completed as designed. Upon approval of the engineering report for the Phase 2 improvements to the WWTF, the Discharger shall comply with WDRs Order R5-2018-____, Flow Limitations B.1.c, and may increase the discharge from the WWTF to **0.325 mgd**.
14. **By (6 months from the adoption of this order)**, the Discharger shall submit a Salinity Management Plan, with salinity source reduction goals and an implementation time schedule for Executive Officer approval. Specifically, the Salinity Management Plan should address the chloride content of the discharge and identify any additional methods that could be used to further reduce the salinity and chloride content of the discharge. The Salinity Management Plan should, to the maximum extent feasible, include an estimate on load reductions that may be attained through the methods identified, and provide a description of the tasks, cost, and time required to investigate and implement various elements in the salinity control plan.
15. **By (6 months from the adoption of this order)**, the Discharger shall submit a Work Plan to evaluate groundwater quality beneath and directly downgradient of the WWTF and recommend an appropriate groundwater monitoring network. **By (1 year from the adoption of this order)**, the Discharger shall implement the approved groundwater monitoring work plan and initiate monitoring of its groundwater monitoring well network. Existing off-site monitoring wells, irrigation, and domestic water wells may be considered if criteria are met (i.e., reasonable horizontal and vertical placement of well intake intervals reflect uppermost first encountered groundwater in the area).
16. **By (6 months from the adoption of this order)**, the Discharger shall submit a Work Plan to evaluate any potential sludge removal and disposal resulting from

the decommissioning of the existing treatment and storage ponds at the WWTF. The plan shall include a detailed plan for sludge removal, drying, and disposal. The plan shall specifically describe the phasing of the project, measures to be used to control runoff or percolate from the sludge as it is drying, and a schedule that shows how all dried biosolids will be removed from the site prior to the onset of the rainy season (**1 October**).

17. 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."
18. 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 2013-0058-EXEC, and any subsequent revisions thereto as adopted by the State Water Board. Water Quality Order 2006-0003 and Order 2013-0058-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.
19. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

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

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

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

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full true, and correct copy of an Order adopted by the California Regional Water Quality Control Board on __ April 2018.

PAMELA C. CREEDON, Executive
Officer

Order Attachments:

- A Site Vicinity Map
- B Site Map

Monitoring and Reporting Program No. R5-2018-____
Information Sheet

Standard Provisions (1 March 1991) (separate attachment to the Discharger only)