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[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER
R5-2021-####



ORDER INFORMATION

Order Type(s): Waste Discharge Requirements (WDRs)
Status: TENTATIVE
Program: Non-15 Discharges to Land
Region 5 Office: Fresno
Discharger: Jamestown Sanitary District (JSD)
Facilities: Jamestown Wastewater Treatment Facilities
Addresses: 10190 Karlee Lane (Quartz WWTF) and
17600 Highway 108 (Woods Creek Facility)
County: Tuolumne County
Prior Order: WDRs Order No. 5-01-062

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 _____ August 2021.

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 [BASIN]
bgs	Below Ground Surface
BOD_[5]	[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
mgd	Million gallons per day

msl	Mean Sea Level
MRP	Monitoring and Reporting Program
MW	Monitoring Well
MCL	Maximum Contaminant Level per Title 22
mJ/cm²	Millijoules per Square Centimeter
ORP	Oxygen Reduction Potential
N	Nitrogen
ND	Non-Detect
NE	Not Established
NM	Not Monitored
Recycled Water Policy	<i>Policy for Water Quality Control for Recycled Water, State Water Board Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057</i>
R[O]WD	Report of Waste Discharge
RCRA	Resource Conservation and Recovery Act
SPRRs	Standard Provisions and Reporting Requirements
SERC	State Emergency Response Commission
TDS	Total Dissolved Solids
Title 22	California Code of Regulations, Title 22
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

1. Jamestown Sanitary District (JSD, District, or Discharger) owns and operates a wastewater treatment facility (WWTF) adjacent to Woods Creek at 17600 Highway 108 (Woods Creek Facility) about a mile southwest of the community of Jamestown in Tuolumne County, Section 15, Township 1 N, Range 14 E, Mount Diablo Base and Meridian (MDB&M), as shown on **Attachment A**.
2. In March 2019, Blackwater Consulting Engineers, Inc., on behalf of the Discharger, submitted a Report of Waste Discharge (RWD) proposing modifications to the Woods Creek Facility and the construction of a new Quartz WWTF. The new Quartz WWTF is at 10190 Karlee Lane about a mile south of the Woods Creek Facility and west of the Quartz Reservoir as shown on Attachment A. Central Valley Water Board staff reviewed the March 2019 RWD in a May 2019 letter and memorandum, requesting additional information. An addendum to the RWD was submitted in July 2020.
3. The modified Woods Creek Facility and the new Quartz WWTF, collectively referred to herein as the Jamestown Wastewater Treatment Facilities (or JSD Facilities) are to be operated in combination to provide domestic wastewater treatment service for the community of Jamestown. The Woods Creek Facility will primarily be a pumping station to route influent to the Quartz WWTF where domestic wastewater will be treated.
4. The JSD Facilities are comprised of the following Tuolumne County Assessor Parcel Numbers (APNs):
 - APN 059-08-058 (Woods Creek Facility).
 - APN 059-150-027 (Quartz WWTF).
5. As the owner and operator of the Jamestown Wastewater Treatment Facilities, the Discharger is responsible for compliance with the Waste Discharge Requirements (WDRs) prescribed in this Order.
6. The following materials are attached and incorporated as part of this Order:
 - a. Attachment A — Site Vicinity Map.

- b. Attachment B — JSD Woods Creek Facility Site Map
 - c. Attachment C — Flow Diagram
 - d. Attachment D — JSD Quartz WWTF Site Map
 - e. Attachment E — Quartz WWTF LAA Map
 - f. Standard Provisions & Reporting Requirements dated 1 March 1991 (SPRRs).
 - g. Information Sheet.
7. Also attached is **Monitoring and Reporting Program R5-2021-####** (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

8. The Woods Creek Facility is currently regulated by WDRs Order 5-01-062, which authorizes a 30-day average dry weather flow¹ of up to 0.28 million gallons per day (mgd) of secondary disinfected effluent to the Quartz Reservoir. However, according to the District, the actual design dry weather capacity of the former Woods Creek Facility was 0.23 mgd. The Quartz Reservoir is part of Tuolumne Utilities District's (TUD) Wastewater Reclamation System that is regulated by WDRs and Master Reclamation Permit Order R5-2002-0202. The TUD Wastewater Reclamation System also receives secondary-treated wastewater from TUD's Sonora Regional WWTF (identified in Attachment A) to the Quartz Reservoir. Discharge from the Sonora Regional WWTF is regulated by WDRs Order 94-192 and authorizes a monthly average dry weather discharge not to exceed 2.6 mgd.
9. TUD recycles secondary-treated wastewater generated by TUD's Sonora Regional WWTF and JSD's WWTF. Treated wastewater is stored at TUD's Quartz Reservoir, a 1,500-acre-foot effluent storage pond. Treated effluent is delivered to land application areas totaling over 600 acres (see Attachment A for general locations). The reclaimed secondary-treated effluent is used primarily for the spray or flood irrigation of fodder crops and pasture for animals not producing milk for human consumption.

¹ The dry weather period is from 1 June through 31 August of each year.

10. With the modifications to the Woods Creek Facility and the construction of the Quartz WWTF, WDR Order 5-01-062 no longer accurately reflects the treatment, discharge, and reuse of wastewater from the JSD Facilities and, therefore, must be revised. This Order rescinds and replaces WDR Order 5-01-062.

Former Facility and Discharge

11. The former Woods Creek Facility consisted of a headworks, primary clarifier, aerobic sludge digester, trickling filter, secondary clarifier, chlorination facilities, a sludge storage lagoon, sludge drying beds, and an equalization basin as shown in **Attachment B**.
12. Potable water is provided to the District by the TUD and results were included in the RWD. The average of the results is presented first with the range of the detections shown below in parentheses.

Table 1 – Source Water Results (2013 – 2017)

Constituent	Units	Influent
Electrical Conductivity (EC)	µmhos/cm	64 (56 – 68)
Total Dissolved Solids (TDS)	mg/L	41.3 (35 – 51)
Chloride	mg/L	4.4 (4.0 – 5.2)
Sulfate	mg/L	2.2 (ND– 4.3)
Nitrate (as N)	mg/L	ND
Ammonia (as N)	mg/L	ND

13. The average dry weather flows and the daily peak wet weather flows from 2016 through 2020 are summarized in Table 2.

Table 2 – JSD Woods Creek Facility Flow Data²

Year	Average Dry Weather Flow (mgd)	Peak Wet Weather Flow (mgd)	Total Annual Flow (million gallons)	Rainfall (inches)
2016	0.188	0.767	74.369	31.18

² Data presented by the District in 2016 through 2020 Annual Reports.

Year	Average Dry Weather Flow (mgd)	Peak Wet Weather Flow (mgd)	Total Annual Flow (million gallons)	Rainfall (inches)
2017	0.207	1.21	93.261	36.05
2018	0.195	0.801	75.121	24.82
2019	0.157	0.966	78.240	37.07
2020	0.189	0.699	69.214	16.27

14. The 2020 influent and effluent monitoring data for select constituents is summarized in Table 3. The 2020 averages are listed with the 2020 range shown in parentheses below.

Table 3 - 2020 JSD Woods Creek Facility Influent & Effluent Results

Constituents	Units	Influent	Effluent
BOD	mg/L	288 (180 – 600)	15 (5 - 35)
TSS	mg/L	217 (99 – 530)	9.4 (4.0 – 44)
TDS	mg/L	Not Sampled	394 (290 – 890)
Nitrate (as N)	mg/L	Not Sampled	1.6 (0.2 – 3.8)
Ammonia (as N)	mg/L	Not Sampled	Not sampled
Total Coliform	MPN/mL	Not Sampled	14.6 (1.8 – 280)

15. The TUD’s current reclamation system at the Quartz Reservoir consists of effluent storage (Quartz Reservoir) and a distribution system of approximately nine miles of pipelines to deliver treated wastewater to multiple end-user sites and over 600 acres of land application areas as shown on Attachment A. The secondary treated reclaimed water is used primarily for the irrigation of fodder, fiber, seed, and pasture crops, but some is used for the spray irrigation of non-food bearing trees.

Modifications to the JSD Woods Creek Facility

16. The headworks at the upgraded Woods Creek Facility will continue to be used with screenings disposed of regularly at a nearby landfill. The headworks include a spiral screen and washer and a Parshall flume for influent flow measurement. The modified Woods Creek Facility has a new grit removal system and an influent pump station to convey the influent to the Quartz WWTF as shown in the

Flow Diagram presented as **Attachment C** The grit collected by the grit removal system is stored in a 1.5 cubic yard self-dumping decanter bin and removed and disposed of regularly at a nearby landfill. The existing force main will be used to convey wastewater from the influent pump station at the Woods Creek Facility to the Quartz WWTF. The existing primary clarifier, trickling filter, secondary clarifier, and aerobic digesters were taken off-line and no longer in use since the Quartz WWTF is now operational.

17. The clay-lined equalization basin and sludge storage lagoon at the Woods Creek Facility were re-lined with a 60-mil textured high-density polyethylene (HDPE) liner and converted into two emergency storage ponds. Both emergency storage ponds are reported to be eight feet in depth. Emergency Storage Pond No. 1 has a capacity of 358,000 gallons, while Emergency Storage Pond No. 2 has a storage capacity of 205,000 gallons. Prior to converting the ponds to emergency storage ponds, solids from these ponds were removed and sent to a landfill for disposal.

New Quartz WWTF

18. The Quartz WWTF is situated on the west/northwest side of the Quartz Reservoir as shown on **Attachment D**. The Quartz WWTF system will consist of a secondary package biological treatment system (one selector tank, two first stage aeration basins, two second stage aeration tanks, two clarifiers, and two aerobic digesters). From the secondary package system, wastewater will either be disinfected using sodium hypochlorite in a secondary chlorine contact tank prior to being reclaimed (at the Quartz Reservoir) or receive tertiary treatment via cloth media filtration and then disinfection by sodium hypochlorite in a tertiary chlorine contact tank prior to being reclaimed.
19. A flow diagram of the new Jamestown Wastewater Treatment Facilities is included as Attachment C. The Quartz WWTF secondary effluent quality is anticipated to be similar to the results of the existing WWTF that were summarized in Table 3. Based on the limited data for nitrogen constituents, the former Woods Creek Facility provided treatment that reduces the average total nitrate (as N) concentrations in the effluent to well below the primary maximum contaminant level (MCL) of 10 mg/L. Both the secondary treated effluent and the tertiary treated Quartz WWTF effluent is denitrified. JSD proposes to use the disinfected tertiary recycled water for a recycled water fill station, onsite washdown water, and irrigation of landscaping at the Quartz WWTF as shown on **Attachment E**. The maximum flow from the tertiary treatment system is

100 gallons per minute or 144,000 gpd. The RWD included proposed disinfected tertiary effluent quality that is summarized in Table 4.

Table 4 – Proposed Tertiary Effluent Quality

Constituent	Units	Influent
BOD	mg/L	< 10
TSS	mg/L	< 10
Ammonia (as N)	mg/L	< 10
Nitrate (as N)	mg/L	< 10
TDS	mg/L	500
pH	pH Units	6.0 – 8.0
Total Coliform Organisms	MPN/mL	<2.2/100 mL

20. The design influent flow rates are presented below in Table 5.

Table 5 – Design Influent Flow Rates

Constituent	Units	Influent
Average Daily Flow	mgd	0.29
Average Dry Weather Flow (June to August)	mgd	0.23
Peak Daily Flow	mgd	1.4

21. Waste Activate Sludge (WAS) generated by the secondary treatment facilities will be stabilized in aerobic digesters. WAS will be dewatered using a rotary fan press or in shallow concrete lined channels. Dewatered solids will be further processed by drying in a concrete lined area that will also serve as a short-term storage area. The District plans on mixing the dewatered solids/biosolids with yard waste at an onsite composting facility at the Quartz WWTF (Quartz Composting Facility) but initially will also dispose of biosolids at a nearby landfill during startup of the WWTF and while District staff becomes proficient in operating the composting facility.
22. The new Quartz WWTF began operations in May 2021 and it is estimated it will require about 90 days to get the Quartz WWTF operating properly. Startup of the tertiary treatment facilities will commence when the secondary treatment systems have stabilized. Discharge of tertiary-treated effluent to LAAs or individual users

may not commence until the District has received final approval from the State Water Resources Control Board, Department of Drinking Water (DDW) and the District has been issued reclamation requirements (see Provision H.3).

Quartz Composting Facility

23. The RWD proposes the District will operate a 10,360 square foot composting facility at the Quartz WWTF. The July 2020 RWD Addendum states the Quartz WWTF will generate approximately 125 to 250 tons of solids annually. Waste activated sludge (WAS) generated at the Quartz WWTF will be stabilized in aerobic digesters. The projected WAS solids generation rate is approximately 400 lbs per day. Following aerobic digestion, the RWD states the Quartz WWTF sludge production will be approximately 300 lbs per day. The sludge will be dewatered using a rotary fan press or in three concrete channels and a large concrete pad. Drainage from the concrete pad and channels will be redirected back to the secondary treatment system. The dewatered solids will be mixed with green waste and formed into windrows for curing at the composting facility or disposed offsite at a landfill.
24. During start-up of the Quartz WWTF and while JSD staff gain experience operating the WWTF, the solids produced at the Quartz WWTF will be disposed of at a nearby landfill. The RWD states that the production and demand for compost will vary during the year and only a portion of the solids produced by the Quartz WWTF will be composted. Prior to commencing composting operations at the Quartz Composting Facility, Provision H.2 of these WDRs require JSD to submit either a Notice of Intent for State Water Resources Control Board's Order WQ 2020-0012-DWQ *General Waste Discharge Requirements for Commercial Composting Operations* (Composting General Order) or, if the composting facility is not eligible for enrollment under the Composting General Order, a technical report that describes how wastewater at the composting facility will be managed to prevent discharge (i.e., infiltration) of wastewater to groundwater and a composting operation and maintenance plan .

Water Recycling Considerations

25. Undisinfected domestic wastewater contains human pathogens that are typically measured using total or fecal coliform organism as indicator organisms.
26. The State Water Board, Division of Drinking Water (DDW), which is charged with establishing drinking water quality standards for the protection of public health, has promulgated a criteria for the use of recycled water throughout California,

codified as California Code of Regulations, title 22 (Title 22), section 60301 et seq.

27. The Quartz WWTF will have the ability to produce both secondary and tertiary treated effluent. Secondary-treated effluent will continue to be recycled using the TUD reclamation system regulated by WDRs and Master Reclamation Permit R5-2002-0202.
28. Tertiary-treated effluent will be reused at the Quartz WWTF for landscape irrigation at the land application areas shown on Attachment E and will be available to JSD customers and area contractors via the Recycled Water Pump Station proposed for the JSD Quartz WWTF (Tertiary Use Areas).
29. The District submitted a Title 22 Engineering Report, dated March 2019, to DDW for the Quartz WWTF for the proposed reuse of disinfected tertiary recycled water. There is no proposed change to the TUD reclamation areas as they will continue to receive secondary-treated effluent from JSD.
30. On 8 July 2019, DDW responded to the March 2019 Title 22 Report and required the report be revised to provide additional information of the following general issues:
 - i. Landscape irrigation at the Quartz WWTF,
 - ii. Routine alarm testing,
 - iii. Explanation of the supply source (potable or tertiary treated wastewater) and proper signage at the Quartz WWTF,
 - iv. Cross-connection controls and backflow prevention measures,
 - v. Contingency Plan modification to identify the project as being in the Southern California Drinking Water Field Operations Branch, and
 - vi. Additional information regarding the recycled water lines, signage around the Quartz WWTF, and purple piping to ensure the areas that tertiary treated wastewater is applied are adequately marked.
31. In response to DDW's July 2019 comments, an updated Title 22 Engineering Report was submitted to DDW in September 2020. DDW has yet to respond to the September 2020 Title 22 Engineering Report.

32. This Order does not include reclamation requirements pursuant to Title 22. Per Provision H.3 of this Order, prior to recycling tertiary-treated effluent from the Quartz WWTF (for landscape use or at the Recycled Water Fill Station), the Discharger must apply for and receive coverage under State Water Board Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use* (Reclamation General Order). As part of the application for the Reclamation General Order, the Discharger must provide a Title 22 Engineering Report approved by DDW.
33. The discharges authorized herein are consistent with the State Water Board's *Policy for Water Quality Control for Recycled Water* (Recycled Water Policy), Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057; and Central Valley Water Board Resolution R5-2009-0028 (*Resolution in Support of Regionalization, Reclamation, Recycling and Conservation for WWTPs*).

Wastewater Collection System

34. The JSD wastewater collection system consists of approximately 76,960 linear feet of 4- to 18-inch diameter pipe, flowing by gravity to the WWTP. The collection system was originally built in 1950 primarily using vitrified clay pipe (VCP). The collection system was expanded/modified over the years and now in addition to VCP, pipe materials include concrete, asbestos cement pipe (ACP), HDPE, and polyvinyl chloride (PVC). There are no lift or pump stations in the JSD service area.
35. Peak wet weather flows have historically been an issue for the JSD WWTF. WDRs Order 5-01-062 states that, at the time of adoption, the Woods Creek Facility had an average dry weather flow of approximately 0.22 mgd. However, peak wet weather flows, caused mainly by an inflow and infiltration problem, resulted in peak flows in excess of 1.1 mgd during wet years.
36. WDR Order 5-01-062 required an *Inflow and Infiltration Correction Plan*, and required annual Inflow and Infiltration Reports summarizing mitigation measures completed during the past year and proposing measures to be implemented in the coming year. The RWD states that collection system improvements have greatly reduced the infiltration and inflow to the system and the new Emergency Storage Ponds at the Woods Creek Facility will provide 0.56 million gallons of emergency storage.

Sanitary Sewer Overflows

37. Sanitary Sewer Overflows³ (SSO), which typically consist 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.
38. 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 of one mile enroll under the SSO General Order. The JSD's collection system exceeds one mile in length and JSD is enrolled under the General Order.

Industrial Pretreatment Considerations

39. 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,

³ 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 wells, 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.

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.
40. Currently, there are no significant industrial wastes being discharged, and/or proposed for discharge, to the JSD Facilities. Consequently, an Industrial Pretreatment Program will not be required at this time. However, this Order can be subsequently revised to require compliance with an approved program, if necessary.

Site-Specific Conditions

Topography, Climate and Land Use

41. The topography at the Woods Creek WWTF slopes generally to the east, with elevations ranging from about 1,335 to 1,360 feet above mean sea level. The RWD notes that the site was graded for the construction of the existing wastewater treatment facilities. The land surface at the Quartz WWTF slopes gently to the east and ranges in elevation from approximately 1,400 feet to 1,375 feet above mean sea level. The Quartz WWTF is on the western flank of a south trending secondary canyon that includes the Quartz Reservoir.
42. Jamestown is in the foothills of the Sierra Nevada Mountain Range in a high rainfall region characterized by cool to hot summers and generally mild but unpredictable winters with temperatures dropping below freezing at times. Average annual precipitation and evaporation in the discharge area are about 30 inches and 56 inches, respectively, according to information published by California Department of Water Resources (DWR).
43. According to National Oceanic and Atmospheric Administration (NOAA) Precipitation Frequency Atlas 14, Vol. 6 (rev. 2014), 100-year and 1,000-year,

24-hour rainfall events are estimated to result in 5.96 and 8.39 inches of precipitation, respectively.⁴

44. According to the Federal Emergency Management Agency's (FEMA) [Flood Insurance Rate Map](#) (Number 06109C0850C) (<https://msc.fema.gov/portal>), the Woods Creek Facility and the Quartz WWTF are listed as being in Zone X, an area of minimal flood hazard.
45. Surrounding land use is primarily agricultural, rural residential, light industrial and open space. The RWD indicates that land uses in the vicinity are mostly include agricultural and low density residential. Typical crops grown in the area are fodder crops and pasture grasses.

Groundwater and Subsurface Conditions

46. The RWD included a December 2018 geotechnical report, prepared by Crawford & Associates, Inc., that provided a description of the subsurface conditions at the JSD Facilities. Soil borings and test pits drilled/excavated at the Woods Creek Facility encountered alluvial materials consisting of predominantly sandy clay and clayey sands to 2.5 feet below the ground surface (bgs). The thin surficial deposits were underlain by weathered metasedimentary bedrock to 10 feet bgs, which was overlying slate metasedimentary bedrock. Similar units were encountered in soil borings and test pits drilled/excavated at the Quartz WWTF. Clayey soils were reported to about to 3.5 feet bgs, with weathered bedrock to 4.0 feet overlying slate metasedimentary bedrock.
47. A three well groundwater monitoring well network is present around the Woods Creek Facility as shown in Attachment B. MW-1 serves as an upgradient well, while MW-2 and MW-3 serve as downgradient wells. The depth to water typically ranges from about 10 feet below the ground surface (bgs) in downgradient MW-3, to about 30 feet bgs in upgradient MW-1. The results below are from the Annual 2020 Groundwater Monitoring Report and represent the averages of the four quarterly 2020 groundwater monitoring events.

⁴ Source: [NOAA Precipitation Frequency Data Server](https://hdsc.nws.noaa.gov/hdsc/pfds) (<https://hdsc.nws.noaa.gov/hdsc/pfds>)

Table 6 - Woods Creek Facility Groundwater Data (2020 Averages)

Constituent	Units	MW-1 (Upgradient)	MW-2 (Downgradient)	MW-3 (Downgradient)
EC	µmhos/cm	472	1,570	1081
TDS	mg/L	303	1,188	800
Nitrate (as N)	mg/L	0.2	0.2	0.2
Ammonia (as N)	mg/L	0.2	10.2	0.3

48. The EC, TDS, and ammonia nitrogen results from MW-2 are noticeably higher than those from upgradient well MW-1. The elevated results in MW-2 indicate an impact to groundwater in the area of MW-2, which is directly downgradient of the existing sludge storage lagoon and equalization basin.
49. In 2015, the average EC result from MW-2 was 600 µmhos/cm with a range of 549 to 703 µmhos/cm. In 2018, the average was 951 µmhos/cm, with a range from 758 to 1,210 µmhos/cm. The EC values are increasing in MW-3 as well. In 2015, EC results from MW-3 ranged from 598 to 649 µmhos/cm.
50. Central Valley Water Board staff issued a 31 May 2019 Letter and Memorandum identifying the increasing salinity and ammonia concentrations in downgradient groundwater monitoring well MW-2 and required the District to submit a Work Plan to address increasing salinity and ammonia concentrations in MW-2 and soil conditions underlying the former sludge lagoon.
51. Blackwater Consulting Engineers submitted a Work Plan in August 2019 to address increasing salinity and ammonia in downgradient groundwater monitoring wells MW-2 and MW-3. The District's planned upgrades propose to modify and reline both the sludge storage lagoon and the equalization basin, which should prevent further groundwater and soil degradation. The MRP requires continued groundwater monitoring at the Woods Creek Facility to evaluate the impact these upgrades will have on underlying groundwater quality.
52. The Quartz Reservoir is owned by TUD and is regulated by WDRs and Master Reclamation Permit Order R5-2002-0202, which includes groundwater monitoring requirements. A seven-well groundwater monitoring well network is present around the Quartz Reservoir as shown in Attachment D. Wells M-1R and M-3R were installed after the initial five wells and are adjacent M-1 and M-3. The direction of groundwater flow is primarily to the south with M-1, M-1R and M-5 as downgradient wells and M-2 and M-4 as cross-gradient wells. However, the reservoir is set in a small secondary canyon that slopes to the south/southwest.

The reservoir backs up against a small geographic divide or saddle where the ground surface slopes to the north/northeast. The saddle forms a hydraulic divide as the groundwater flow north of the divide (measured in M-2, M-3, M-4) is to the north/northeast as shown on figures included in the quarterly monitoring reports. The result is northern well M-3 and M-3R are downgradient wells. Depth to water in the Quartz Reservoir groundwater monitoring wells during the Fourth Quarter 2020 monitoring event ranged from 9.53 feet below the ground surface (bgs) in M-1 to 58.03 feet bgs in M-4.

53. Fourth Quarter 2020 groundwater quality results from the wells set around the Quartz Reservoir are summarized in Table 7.

Table 7 – Quartz WWTF - Fourth Quarter 2020 Groundwater Results

Well	TDS (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (as N) (mg/L)	Total Kjeldahl Nitrogen (mg/L)
M-1	490	78	110	2.1	0.26
M-1R	570	99	45	7.5	0.22
M-2	250	7.4	19	< 1.0	0.22
M-3	550	31	190	< 1.0	<0.2
M-3R	440	21	79	< 1.0	0.26
M-4	250	1.2	5.9	< 1.0	<0.2
M-5	360	20	40	< 1.0	<0.2

54. The results of the Fourth Quarter 2020 monitoring event are all below applicable water quality objectives apart from total dissolved solids (TDS). TDS results in groundwater monitoring wells M-1R and M-3 exceed the recommended secondary Maximum Contaminant Level (MCL) of 500 mg/L, but they are less than the upper Secondary MCL of 1,000 mg/L.

Legal Authorities

55. This Order is adopted pursuant to Water Code section 13263, subdivision (a), which provides in pertinent part as follows:
56. 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. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonable required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.

57. Compliance with section 13263, subdivision (a), including implementation of applicable water quality control plans, is discussed in the findings below.
58. 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).)
59. This Order and its associated MRP are also adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides as follows:
60. [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.
61. 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

62. 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

63. This Order implements the Central Valley Water Board's Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River 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.)
64. Local drainage is to Woods Creek, a tributary to New Don Pedro Reservoir, the beneficial uses of which (per the Basin Plan) include: municipal and beneficial use (MUN); industrial power (POW); water contact recreation (REC-1); non-water contact recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); and wildlife habitat (WILD).
65. Per the Basin Plan, beneficial uses of underlying groundwater at the Facility are municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PRO).

Water Quality Objectives

66. 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.
67. 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 MCLs specified in California Code of Regulations, title 22 (Title 22).⁵ (See Title 22, §§ 64431, 64444, 64449.)
68. 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.
69. To the extent necessary, narrative WQOs are quantified, on a site-specific basis, as numeric limits for constituents with potential to adversely impacted designated

⁵ 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.

uses. In determining a site-specific numeric limit, the Central Valley Water Board considers relevant published criteria.

70. 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 EC of less than 700 $\mu\text{mhos/cm}$, 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 $\mu\text{mhos/cm}$, if the proper leaching fraction is provided to maintain soil salinity within the tolerance of the crop.
71. The list of crops in the findings 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.

Salt and Nitrate Control Program

72. 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 Salt and Nitrate Control Programs to address ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Board adopted Resolution No. 2019-0057 conditionally approving the Basin Plan amendments and directing the Central Valley Water Board to make targeted revisions to the amendments within one year after obtaining approval from 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), which became effective on 17 January 2020.
73. For the Salt Control Program, the Discharger was issued a Notice to Comply (CV-SALTS ID 2155) with instructions and obligations for the Salt Control Program on 5 January 2021. The Discharger must submit a Notice of Intent by 15 July 2021 informing the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting). Dischargers that are unable to comply with stringent salinity requirements for EC of 700 $\mu\text{mhos/cm}$ to protect AGR beneficial uses or 900 $\mu\text{mhos/cm}$ to protect MUN beneficial uses will need to meet performance-based requirements and participate in a basin-wide planning effort to develop a long-term salinity strategy for the Central Valley (i.e., participate in

the Priority and Optimization Study per Option 2). The District has indicated it will pursue permitting under Option 2 and will participate in the Priority and Optimization Study for the region.

74. The Nitrate Control Program was developed to address widespread nitrate pollution in the Central Valley. Upon receipt of a Notice to Comply, dischargers that are unable to comply with the stringent nitrate requirements will be required to take on alternative compliance approaches that involve providing replacement drinking water to persons whose drinking water is affected by nitrates. Dischargers may comply with the Nitrate Control Program either individually (Pathway A) or collectively as part of a Management Zone Group (Pathway B).
75. For the Nitrate Control Program, the Board identified areas, referred to as Priority 1 and Priority 2 basins, where nitrates in groundwater are more prevalent and therefore pose a higher risk to persons who rely on groundwater as a source of drinking water. Priority 1 and Priority 2 basins have timelines under which permittees, such as you, are required to implement Nitrate Control Program requirements. Dischargers may comply with the new nitrate program either individually or collectively with other dischargers. For the Nitrate Control Program, the Facility falls outside a groundwater basin. For dischargers outside a groundwater basin, a Notice to Comply may be issued if the Central Valley Water Board Executive Officer determines it is necessary to protect water quality.
76. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs to ensure the goals of the Salt and Nitrate Control Programs are met. This order may be amended or modified to incorporate newly applicable requirements.

Antidegradation Policy

77. The *Statement of Policy with Respect to Maintaining High Quality Waters in California*, 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 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).
78. Groundwater quality monitoring data at the Quartz WWTF dates to 2007. Given the unavailability of pre-1968 water quality information, compliance with the

Antidegradation Policy will be determined based on existing background water quality (Antidegradation Baseline).

79. Constituents of concern (COCs) that have the potential to degrade groundwater include TDS and nitrate (as N), as discussed below and as shown in Table 8. Ammonia is not detected in the effluent, but it was included as the results of samples collected from the Quartz Reservoir have results up to 32.9 mg/L. Upgradient wells include M-2 and M-4. Downgradient wells include M-1, M-1R, M-3, M-3R, and M-5. All of the results are averages of the 2020 monitoring results with the range of the results shown in parentheses below.

Table 8 – Constituents of Concern

Location	TDS (mg/L)	Nitrate (as N) (mg/L)	Ammonia (as N) (mg/L)
Woods Creek WWTF Secondary Effluent	394 (290 – 890)	1.6 (0.2 – 3.8)	Not Sampled
Quartz Reservoir	303 (270 – 340)	2.4 (0.2 – 4.3)	15.1 (<0.1 – 32.9)
Groundwater (Upgradient)	250 - 310	<0.1 - 0.16	Not Sampled
Groundwater (Downgradient)	360 - 710	< 0.1 – 7.5	Not Sampled
Water Supply	41.3 (35 – 51)	<0.1	<0.2
Water Quality Objectives	500/1,000	10	---

- a. **Salinity (EC and TDS).** MRP Order 5-01-062 did not require effluent monitoring for EC but did require effluent monitoring for TDS. Based on the TDS data, EC values would be about 600 μ mhos/cm, similar to the EC results from TUD’s Sonora Regional WWTF that provides similar wastewater treatment. Effluent TDS data is below the 500 mg/L Recommended Secondary MCL. However, data in downgradient monitoring wells around the Quartz Reservoir appear to indicate the WWTF’s discharge (in combination with TUD’s Sonora Regional WWTF) may have impacted underlying groundwater with regards to salinity at the Quartz Reservoir. To address the Facility’s salinity impact on underlying groundwater, this Order requires the Discharger to comply with the new Salinity Control Program. Furthermore, these WDRs authorize a new reclamation use of higher quality effluent, which should reduce the volume of recycled water discharged to the Quartz Reservoir.

Furthermore, the available groundwater monitoring data at the Woods Creek Facility indicates potential impacts by the historic operation and discharge of wastewater at the Woods Creek Facility. The upgrades at the Woods Creek Facility, including lining the emergency storage ponds (former treatment ponds), should result in limited to no further discharge of wastewater to groundwater at the site. Therefore, if the groundwater degradation observed in the groundwater monitoring data at the Woods Creek Facility is due to the historic operation and discharge, groundwater quality data should improve overtime. Continued groundwater monitoring at the Woods Creek Facility is required in the MRP to monitor groundwater quality at the site over time.

- b. **Nitrogen.** For nutrients such as nitrogen, the potential for degradation depends not only on the quality of the treated effluent but also onsite conditions and the ability of the vadose zone to provide an environment conducive to nitrification and denitrification to effectively convert the nitrogen compounds to nitrogen gas before it reaches groundwater. Available data indicates nitrogen present in the effluent is primarily nitrate (as N) with results ranging from 0.2 to 1.6 mg/L, well below the MCL of 10 mg/L. With upgradient nitrate concentrations in groundwater at non detect and denitrification of both the secondary and tertiary treated effluent streams, some degradation from nitrate (as N) may occur, but the resulting groundwater results are anticipated to remain below the MCL of 10 mg/L.

Based on the available data for nitrogen constituents, the Facility provides treatment that reduces the average nitrate (as N) concentrations in the effluent to well below the primary MCL of 10 mg/L. Based on the effluent quality and groundwater monitoring, the discharge should not significantly impact underlying groundwater. To protect groundwater quality, this Order includes a groundwater limitation for nitrate (as N) of 10 mg/L and an annual average effluent limitation for nitrate (as N) of 10 mg/L. The MRP includes effluent monitoring for nitrate (as N) and total nitrogen to better characterize the effluent.

80. 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.
81. Generally, the limited degradation of groundwater by some of the typical waste constituents of concern (e.g., nitrate, TDS, and chloride) released with discharge from a municipal wastewater utility after effective source control, treatment, and

control measures is consistent with the maximum benefit to the people of the State. The technology, energy, and waste management advantages of a municipal utility service far exceeds any benefit derived from a community otherwise reliant on concentrated individual wastewater treatment systems, and the impacts to water quality will be substantially less. Further, the economic prosperity of valley communities and associate industry is of maximum benefit to the people of the State, and therefore provides sufficient reason to accommodate continued operation of the Facility and some groundwater degradation provided the terms of the Basin Plan are met. Accordingly, to the extent that any degradation occurs as a result of the Facility's continued operation, such degradation is consistent with the maximum benefit to the people of the State.

82. 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 operation:
 - a. The Facility will provide secondary- and tertiary-treatment (with denitrification) and disinfection.
 - b. Effluent limitations for flow, BOD₅, TSS, total coliform, and nitrate;
 - c. Use of certified operators to ensure proper operation and maintenance of the JSD Facilities;
 - d. Recycling of disinfected secondary and tertiary-treated effluent at agronomic rates on landscape and agricultural areas;
 - e. Compliance with the Salt and Nitrate Control Programs;
 - f. Expanded influent, effluent, and groundwater monitoring; and
 - g. Solids/sludge handling at the WWTF will either be:
 - i. Transported offsite for disposal at a nearby landfill; or
 - ii. Used for composting onsite at the Quartz WWTF in a manner that is protective of underlying groundwater quality.
83. Based on the foregoing, the adoption of this Order is consistent with the State Water Board's Antidegradation Policy.

California Environmental Quality Act

84. In accordance with the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., on 27 June 2016, the Jamestown Sanitary District adopted an Expanded Initial Study and Mitigated Negative Declaration (MND) for the then proposed project. An Initial Study and MND was originally circulated for the project on 4 September 2015 and was assigned State Clearing House Number 2015092020.
85. The Central Valley Water Board, as a “responsible agency” pursuant to CEQA, was consulted with in the development of the MND and determined that the compliance with waste discharge requirements would mitigate any significant impacts to water quality.

Other Regulatory Considerations

Human Right to Water

86. 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

87. 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

88. 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

89. This Order does not cover stormwater and other discharges that are subject to the Clean Water Act's National Pollution Discharge Elimination System (NPDES). The JSD Facilities are exempt from coverage under Order NPDES No. CAS000001 because the facility has a design flow that is less than one mgd. The RWD noted that both the Woods Creek Facility and the Quartz WWTF have storm drainage collection systems that route rainwater away from the facilities and have the option to collect drainage to a temporary storage area (Emergency Storage Pond 2 for the Woods Creek Facility and stormwater detention basins for the Quartz WWTF).

Biosolids

90. 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.

Groundwater Wells

91. Existing DWR standards for the construction and destruction of groundwater wells, as well as any more stringent standards that are subsequently adopted, shall apply to all monitoring wells used to monitor impacts of wastewater storage or disposal governed by this Order. (see *Cal. Well Stds. Bulletin 74-90* [DWR, June 1991]; *Water Wells Stds. Bulletin 74-81* [DWR, Dec. 2918].)
92. Statistical data analysis methods outlined in the US EPA's *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (Unified Guidance) are appropriate for determining compliance with the Groundwater Limitations of this Order. Depending on the circumstances, other methods may also be appropriate.

Scope of Order

93. This Order is strictly limited in scope to those waste discharges, activities and processes described and expressly authorized herein.
94. 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 RWD per Water Code section 13260.
95. Failure to file a new RWD before initiating material changes to the character, volume or timing of discharges authorized herein, shall constitute an independent violation of these WDRs.
96. 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

97. 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.
98. 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.)
99. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.
100. 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 No. 5-01-062 is rescinded (except for enforcement purposes); and that the Discharger and their agents, employees and successors shall comply with the following.

A. Standard Provisions—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 Quartz Reservoir or recycled water use areas (or LAA) described in the Findings is prohibited.
7. Toxic substances shall not be discharged into the wastewater treatment system such that biological treatment mechanisms are substantially disrupted.

C. Influent Flow Limitations

1. Influent flows to the Facility, monitored at INF-001 (as defined in the MRP), shall not exceed the following limits:

Table 9 – Influent Flow Limitations

Averaging Period	Limit
Average Annual Flow	0.29 mgd

Averaging Period	Limit
Average Monthly Dry Weather Flow (see 1 below)	0.23 mgd
Peak Daily Flow (Maximum Daily)	1.4 mgd

1. The Discharger shall comply with the average monthly dry weather flow limitation from 1 June through 31 August of each year.

D. Effluent Limitations

1. **Discharge Point EFF-001 (Disinfected Secondary-Treated Effluent):**
 Disinfected secondary-treated effluent discharged from the Quartz WWTF to the TUD reclamation system, monitored at EFF-001 (as defined in the MRP), shall not exceed the limits specified below:

Table 10 – Secondary-Treated Effluent Limitations

Constituent	Annual Average	Monthly Average	7-Day Median	Daily Maximum
BOD ₅	--	30 mg/L	--	60 mg/L
TSS	--	30 mg/L	--	60 mg/L
Total Coliform Organisms	--	--	23 MPN/100 mL	240 MPN/100 mL
Nitrate (as N)	10 mg/L	--	--	--

2. **Discharge Point EFF-002 (Disinfected Tertiary-Treated Effluent):**
 Disinfected tertiary-treated effluent discharged from the Quartz WWTF to the Tertiary Use Areas (discussed in Finding 22), monitored at EFF-002 (as defined in the MRP), shall not exceed the following limits:

- a. The effluent limitations specified in Table 11 below:

Table 11 – Tertiary-Treated Effluent Limitations

Constituent	Annual Average	Monthly Average	Daily Maximum
BOD ₅	--	10 mg/L	20 mg/L
TSS	--	10 mg/L	20 mg/L
Nitrate (as N)	10 mg/L	--	--

- b. The following total coliform limits:
 - i. 2.2 MPN/100 mL, as a 7-day median;

- ii. 23 MPN/100 mL, more than once in any calendar month; and
- iii. 240 MPN/100 mL, at any time.

E. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will cause a violation of the Groundwater Limitations in this Order.
2. Wastewater treatment, storage, and disposal shall not cause a condition of pollution or nuisance as defined by Water Code section 13050.
3. For tertiary-treated effluent, prior to disinfection, the turbidity of the filtered effluent, expressed as in Nephelometric Turbidity Units (NTUs), shall not exceed the limits specified below:
 - a. When coagulation is used, the Discharger shall operate the treatment system to ensure that the turbidity measurement at a location representative of effluent from the filtration system shall not exceed:
 - i. An average of 2 NTU within a 24-hour period,
 - ii. 5 NTU more than 5 percent of the time within a 24-hour period, and
 - iii. 10 NTU at any time.
 - b. When coagulation is not used, the Discharger shall operate the treatment system to ensure:
 - i. The turbidity of the influent to the filtration unit shall not exceed 5 NTU for more than 15 minutes and never exceed 10 NTU; and
 - ii. The effluent turbidity measured at a location representative of effluent from the filtration system shall not exceed 2 NTU at any time.
4. For tertiary-treated effluent, the filtered effluent shall receive a minimum CT (the product of total chlorine residual and modal contact time measured at the same point) of 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow.
5. Wastewater contained in any unlined pond shall not have a pH less than 6.0 or greater than 9.0.
6. The discharge shall remain within the permitted waste treatment/containment structures or the approved recycled use areas at all times

7. Application of recycled water to the LAAs shall be reasonable and shall consider soil, climate, and plant demand. In addition, application of recycled water and use of fertilizers shall be at a rate that takes into consideration nutrient levels in recycled water and nutrient demand by crops⁶. As a means of discerning compliance with this requirement:
 - a. Crops or landscape vegetation shall be grown on Use Areas and cropping activities shall be sufficient to take up the nitrogen applied, including any fertilizers and manure.
8. All systems and equipment shall be operated to optimize discharge quality.
9. 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.
10. Public contact with wastewater at the Facility shall be prevented through such means as fences, signs, or acceptable alternatives.
11. Objectionable odors shall not be perceivable beyond the limits of the Facility property at an intensity that creates or threatens to create nuisance conditions.
12. As a means of ensuring compliance with Discharge Specification E.11, the dissolved oxygen (DO) content in the upper one foot of any wastewater 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 storage pond is below 1.0 mg/L for any single sampling event, the Discharger shall implement daily DO monitoring 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.
13. 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

⁶ The Central Valley Water Board recognizes that some leaching of salts is necessary to manage salt in the root zone of crops for production. Such leaching shall be managed to minimize degradation of groundwater, maintain compliance with the groundwater limitations of this Order, and prevent pollution.

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.

14. 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.
15. On or about **1 October** of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications E.13 and E.14.
16. 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.
17. 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.

F. Groundwater Limitations— Release of waste constituents from any portion of the Facility shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or in excess of natural background quality, whichever is greater:

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

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

G. Solids Disposal Specifications

1. Sludge⁷ and Solid Waste⁸ shall be removed from screens, sumps, ponds, and clarifiers as needed to ensure optimal plant operation.
2. Residual sludge, biosolids, and solid waste shall be disposed of offsite and/or treated onsite (composted) in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for further treatment, disposal, or reuse onsite and/or offsite 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,⁹ solid waste, and biosolids¹⁰ for treatment, composting, and/or offsite disposal shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the Groundwater Limitations of this Order.

⁷ For the purposes of this section, “**sludge**” means the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes.

⁸ For the purposes of this section, “**solid waste**” includes grit and screenings generated during preliminary treatment at the Facility.

⁹ For the purposes of this section, “**residual sludge**” means sludge that will not be subject to further treatment at the Facility.

¹⁰ 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.

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.

H. 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 H.5.
2. **At least 90 days prior to commencing composting operations at the Quartz WWTF**, the Discharger shall submit either a Notice of Intent for State Water Resources Control Board's Order WQ 2020-0012-DWQ *General Waste Discharge Requirements for Commercial Composting Operations* (Composting General Order) or, if the composting facility is not eligible for enrollment under the Composting General Order, a technical report that describes how wastewater at the composting facility will be managed to be protective of underlying groundwater and a composting operation and maintenance plan .
3. **At least 90 days prior to recycling tertiary-treated effluent from the Quartz WWTF**, the Discharger must apply for coverage under State Water Board Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water* (Reclamation General Order). As part of the application for the Reclamation General Order, the Discharger must provide a Title 22 Engineering Report approved by DDW. Recycling of tertiary-treated effluent shall commence upon enrollment under the Reclamation General Order.

4. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows (typically 1 June through 31 August), 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.
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 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.
7. The Discharger shall comply with Monitoring and Reporting Program **R5-2021-####**, 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.
8. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

9. The Discharger shall 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.
10. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.
11. The Discharger shall provide certified wastewater treatment plant operators in accordance with Title 23, division 3, chapter 26.
12. 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.
13. The Discharger shall 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.
14. 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."
15. 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.
16. 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.

17. 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.
18. 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.
19. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.

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. [Copies of the law and regulations 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)

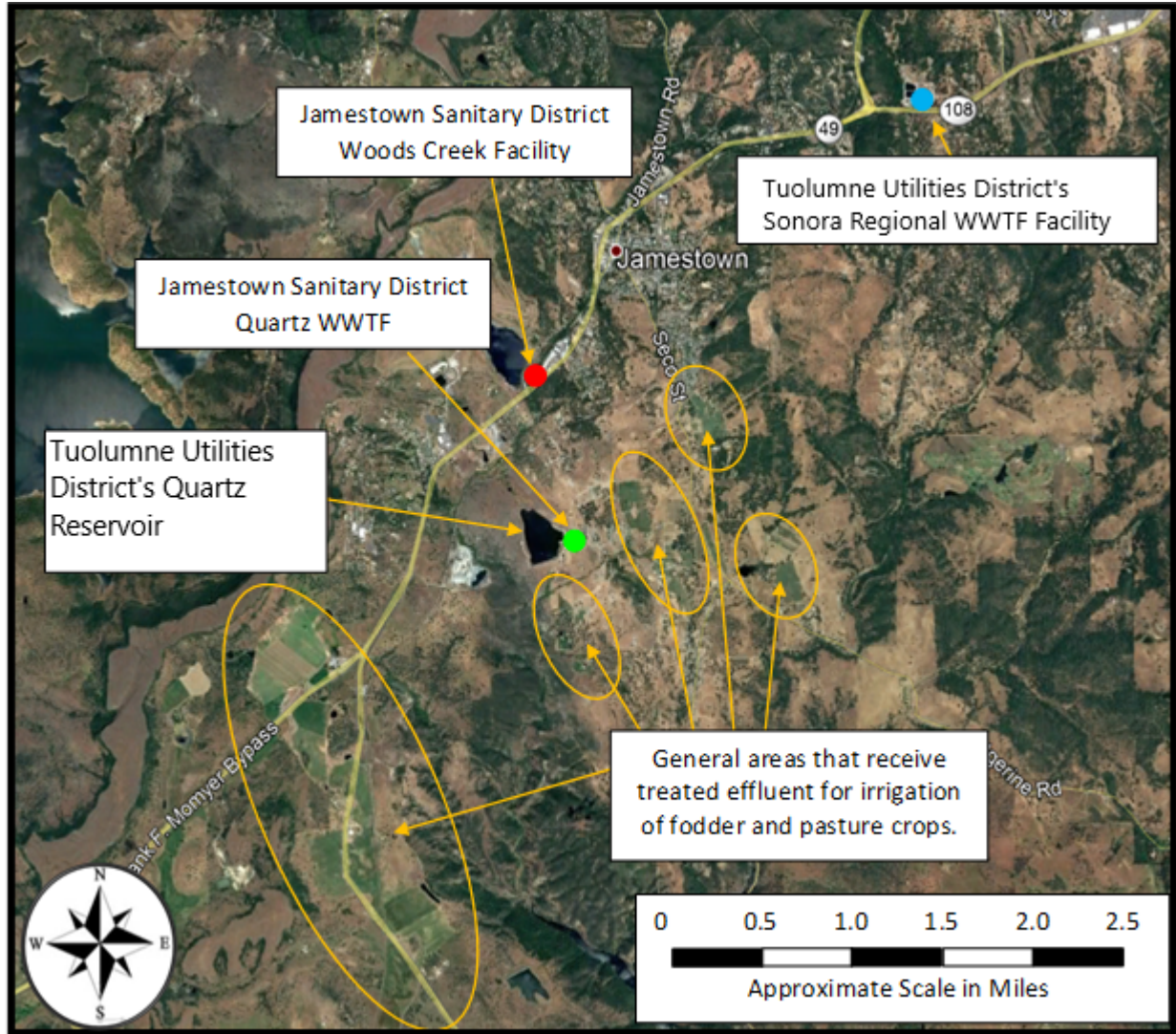
ATTACHMENTS

Attachment A — Site Vicinity Map
Attachment B — JSD Woods Creek Facility Site Map
Attachment C — Flow Diagram
Attachment D — JSD Quartz WWTF Site Map
Attachment E — Quartz WWTF LAA Map
Information Sheet

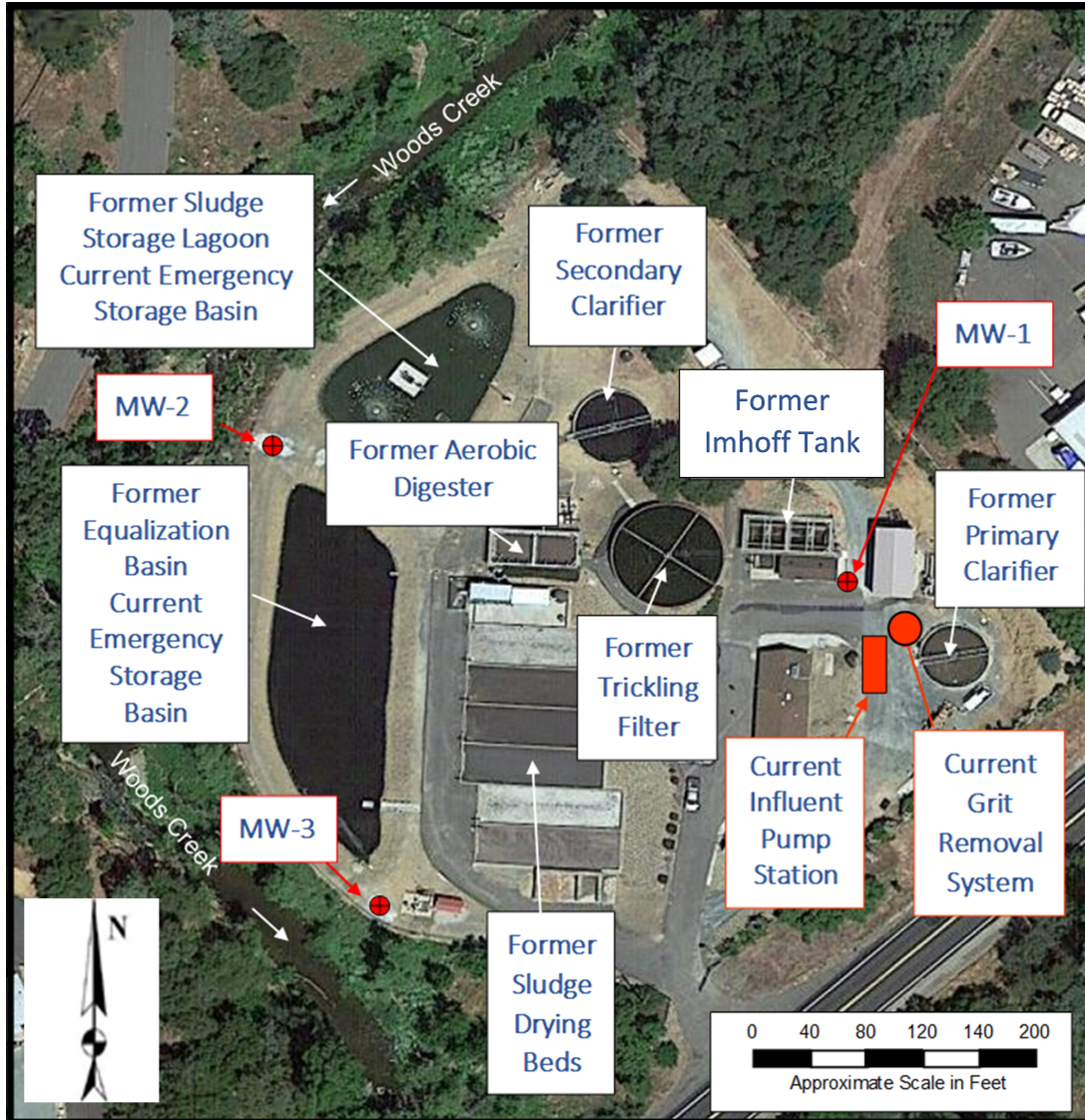
Standard Provisions and Reporting Requirements (SPRRs), dated 1 March 1991

Monitoring and Reporting Program R5-2021-####

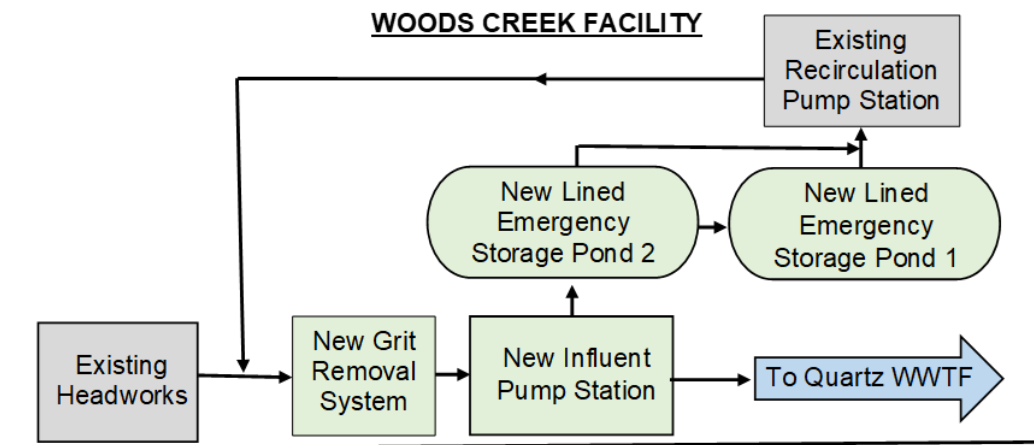
ATTACHMENT A — SITE VICINITY MAP



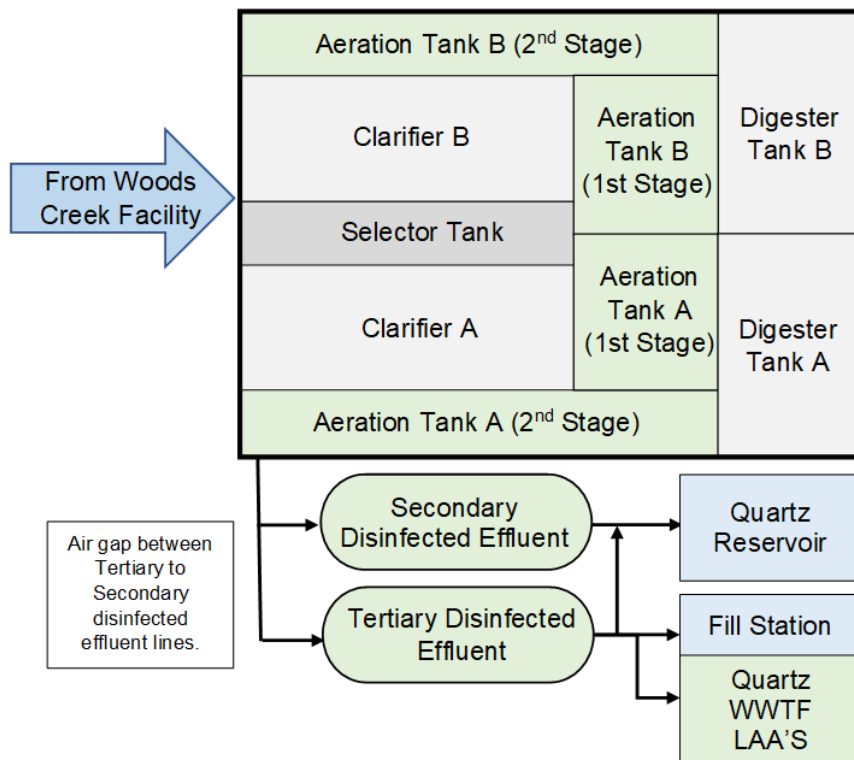
ATTACHMENT B — JSD WOODS CREEK FACILITY SITE MAP



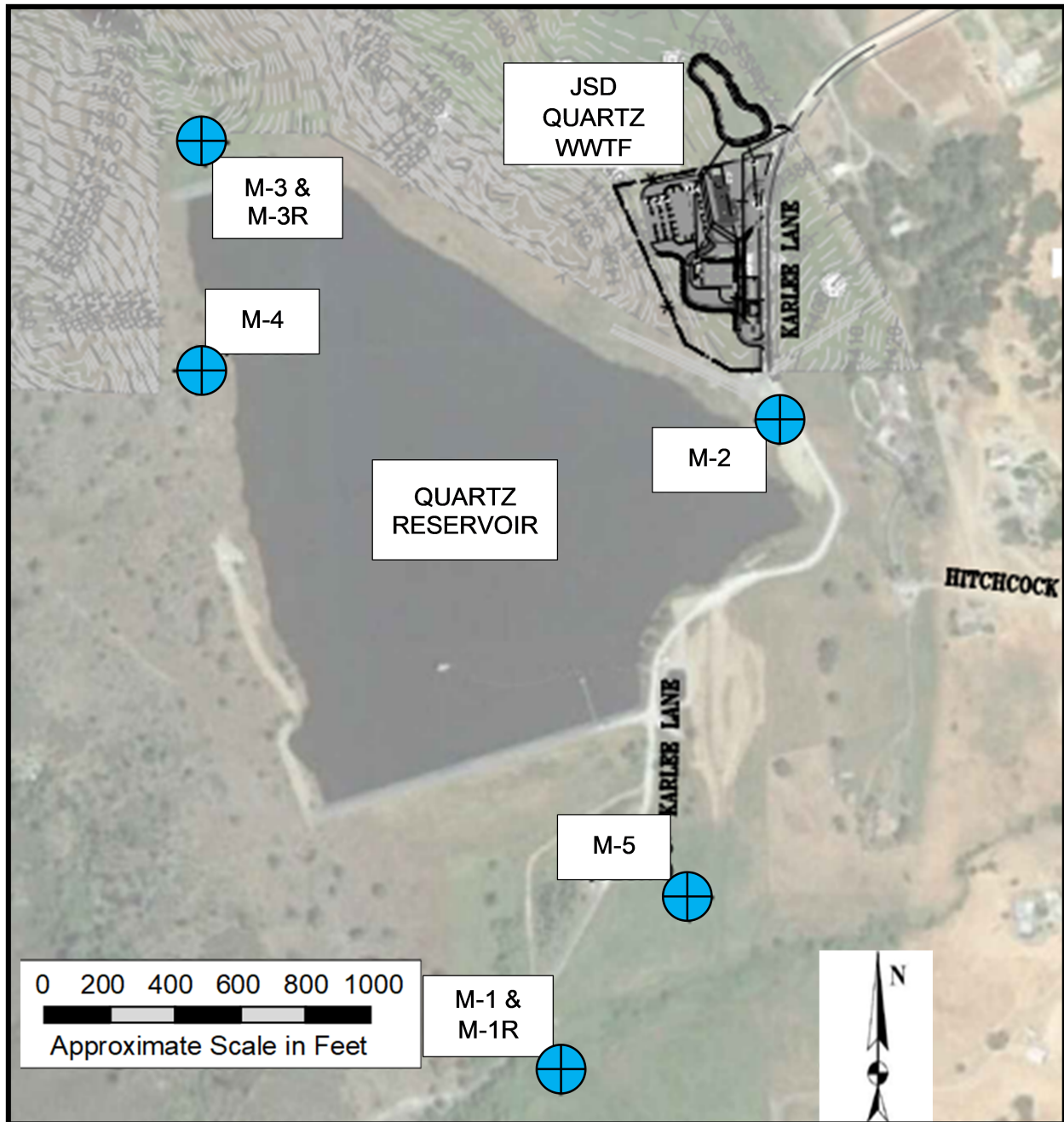
ATTACHMENT C — FLOW DIAGRAM



QUARTZ WASTEWATER TREATMENT FACILITY

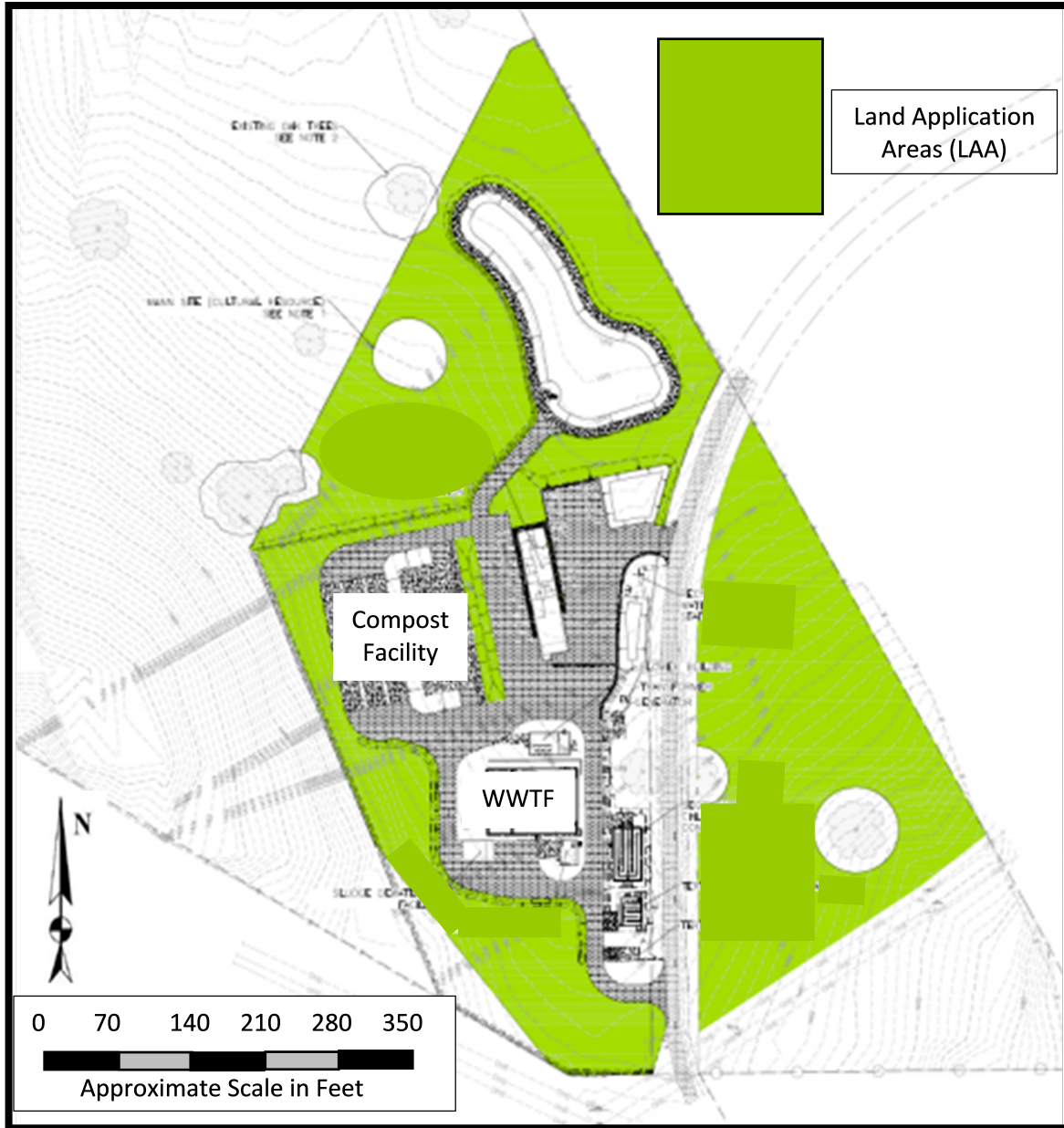


ATTACHMENT D — JSD QUARTZ WWTF SITE MAP



Original from March 2019 Report of Waste Discharge, Figure 9 prepared by Blackwater Consulting Engineers, Modesto, CA. Well locations are approximate.

ATTACHMENT E — QUARTZ WWTF LAA MAP



Original from 6 October 2020 Advisory Letter, Attachment C, Augustine Planning Associates, Inc.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2021-####
FOR
JAMESTOWN SANITARY DISTRICT (JSD)
JAMESTOWN WASTEWATER TREATMENT FACILITIES
TUOLUMNE COUNTY

INFORMATION SHEET

BACKGROUND

In March 2019, Blackwater Consulting Engineers, Inc., on behalf of the Jamestown Sanitary District (JSD, District, or Discharger), submitted a Report of Waste Discharge (RWD) proposing modifications to the existing JSD wastewater treatment facility (WWTF) adjacent to Woods Creek (Woods Creek Facility) in Tuolumne County. The RWD also proposed the construction of a new WWTF, referred to as the Quartz WWTF, about a mile from the existing WWTF. An Addendum to the RWD was submitted in July 2020 that described proposed sludge/biosolids handling and disposal procedures at the new JSD Quartz WWTF.

The former JSD WWTF is regulated by Waste Discharge Requirements (WDRs) Order 5-01-062. WDRs Order 5-01-062 allows a 30-day average dry weather flow of up to 0.28 million gallons per day (mgd) of secondary disinfected effluent into the Tuolumne Utilities District's (TUD) reclamation system that distributes secondary disinfected effluent from both the former Woods Creek WWTF and the TUD's Sonora Regional WWTF to land application areas (LAAs) regulated by WDRs and Master Reclamation Permit Order R5-2002-0202. According to the District, the former Woods Creek WWTF had an average dry weather design flow of 0.23 mgd.

FACILITIES AND DISCHARGES

The modified JSD Woods Creek Facility and the new JSD Quartz WWTF, collectively referred to as the JSD Facilities, came online in May 2021 and are operated in combination to provide domestic wastewater services (treatment, storage, and disposal/reuse) for the community of Jamestown. The Quartz WWTF contains a package biological treatment system and provides both disinfected secondary and disinfected tertiary treatment of effluent. Disinfected secondary-treated effluent from the new Quartz WWTF will continue to be discharged to the TUD reclamation system. JSD proposes to reuse disinfected tertiary-treated effluent for various uses including a recycled water fill station, onsite washdown water, and irrigation of landscaping at the Quartz WWTF.

Modifications to the Woods Creek Facility

The headworks at the existing JSD Woods Creek Facility will continue to be used and a new grit removal system and influent pump station was constructed. The clay-lined

equalization basin and sludge storage lagoon were re-lined with high-density polyethylene (HDPE) and converted into two emergency storage basins. The existing force main will be used to convey wastewater from the proposed influent pump station to the proposed new JSD Quartz WWTF.

New JSD Quartz WWTF

The new JSD Quartz WWTF is located at 10190 Karlee Lane about a mile south of the existing JSD Woods Creek Facility. The JSD Quartz WWTF contains a secondary package biological treatment system, a blower/compressor building, a cloth media tertiary filtration system, a secondary chlorine contact tank, a tertiary chlorine contact tank, a chemical storage building, an administration and shop building, a solids dewatering area, an on-site wastewater pump station, stormwater detention ponds, and a recycled water pump station.

The 2019 RWD also proposes a 10,360 square foot composting facility that JSD will operate at the Quartz WWTF property. The July 2020 Addendum indicates the new WWTF will generate 125 to 250 tons of solids annually and the new WWTF will produce 300 pounds per day following aerobic digestion. Dewatered sludge or cake will be mixed with yard waste and formed into windrows. The JSD will compost as much of the solids as possible, but the RWD states that the production and demand for compost will vary during the year and only a portion of the solids produced by the Quartz WWTF may be composted, with the remainder taken to the landfill. Prior to commencing composting activities, the WDRs require JSD to either enroll under the State Water Resources Control Board's Order WQ 2020-0012-DWQ *General Waste Discharge Requirements for Commercial Composting Operations* (Composting General Order) or, if the composting facility is not eligible for enrollment under the Composting General Order, a technical report that describes how wastewater at the composting facility will be managed to be protective of underlying groundwater and a composting operation and maintenance plan.

GROUNDWATER CONSIDERATIONS

Groundwater conditions are discussed in Findings 46 to 54 of the Order. A three-well groundwater monitoring network is present at the Woods Creek Facility. MW-1 serves as an upgradient well, while MW-2 and MW-3 serve as downgradient wells. The depth to water typically ranges from about 10 feet below the ground surface (bgs) in downgradient MW-3, to about 30 feet bgs in upgradient MW-1.

The EC, TDS, and ammonia results from MW-2 are noticeably higher than those from upgradient well MW-1. The District submitted a Work Plan in August 2019 to address increasing salinity and ammonia in downgradient groundwater monitoring wells MW-2 and MW-3. The Work Plan states that the sludge storage lagoon was used for holding filtrate from the sludge dewatering process. The filtrate is reported to have high ammonia concentrations and the ammonium ion increases EC. The storage of the filtrate in the sludge storage ponds appears to be the cause of elevated groundwater

concentrations. The sludge storage lagoon was relined and will now be used as an emergency storage pond. The relining of the emergency storage pond should minimize/prevent the potential threat to underlying groundwater. The Monitoring and Program (MRP) requires continued groundwater monitoring at the Woods Creek Facility to monitoring the groundwater conditions at the site.

TUD monitors a seven-well groundwater monitoring well network around the Quartz Reservoir and submits quarterly groundwater monitoring reports to the Central Valley Water Board as required by Master Reclamation Permit and MRP Order R5-2002-0202.

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).

The antidegradation analysis and conclusions are discussed in Findings 77 through 83 of the Order.

DISCHARGE PROHIBITIONS, LIMITATIONS, DISCHARGE SPECIFICATIONS, AND PROVISIONS.

This Order specifies the following influent flow limitations: a 0.29 mgd annual average flow limit, a 0.23 mgd monthly average dry weather flow limit, and maximum daily flow limit of 1.4 mgd. The Order specifies secondary-treated effluent limits of 30 mg/L (monthly average) and 60 mg/L (daily max) for both biochemical oxygen demand (BOD) and total suspended solids (TSS). The Order specifies tertiary-treated effluent limits of 10 mg/L (monthly average) and 20 mg/L (daily max) for BOD and TSS. Furthermore, the Order specifies an annual average limit of 10 mg/L for nitrate (as N) and total coliform limitations for disinfected secondary treated effluent (23 MPN/100 ml - seven day median, and 240 MPN/100 ml daily maximum) and disinfected tertiary treated effluent (2.2 MPN/100 ml - seven day median, 23 MPN/100 ml per calendar month, and 240 MPN/100 ml maximum).

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 impact of waste discharges on water for the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate. This Order includes influent, effluent, solids, groundwater, and water supply monitoring requirements. This

monitoring is necessary to characterize the discharge and evaluate compliance with the requirements and specifications of 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 waters and soils of 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 conditionally approving the Central Valley Water Board Basin Plan amendments and directing the Central Valley Water Board to make targeted revisions to the Basin Plan amendments within one year from the approval of the Basin Plan amendments by the Office of Administrative Law. The Office of Administrative Law (OAL) approved the Basin Plan amendments on 15 January 2020. (OAL Matter No. 2019-1203-03).

Pursuant to the Basin Plan amendments, dischargers will receive a Notice to Comply with instructions and obligations for the Salt Control Program within one year of the effective date of the amendments (17 January 2020). A Notice to Comply was issued on 5 January 2021 to the Discharger. The Discharger must submit a Notice of Intent by 15 July 2021 informing the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting). The level of participation required of dischargers whose discharges do not meet stringent salinity requirements will vary based on factors such as the amount of salinity in the discharge, local conditions, and type of discharge. For the Nitrate Control Program, the Facility falls outside of groundwater basin. A Notice to Comply may be issued if the Executive Officer of the Central Valley Water Board determines it is necessary to protect water quality. The CV-SALTS initiative will result in regulatory changes that will be implemented through conditional prohibitions and modifications to many WDRs regionwide, including the WDRs that regulate discharges from the Facility. More [information regarding the CV-SALTS regulatory planning process](https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/) can be found at the following link: https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/

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 actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.