



February 1, 2024

Submitted by email to:
centralvalleyfresno@waterboards.ca.gov

Mr. Alex Mushegan, P.E.
Supervising Water Resources Control Engineer
Regional Water Quality Control Board
Central Valley Region
1685 "E" Street
Fresno, CA 93706-2007

Subject: Sonora Regional Wastewater Treatment Facility, Tentative WDRs Comments

Dear Mr. Mushegan:

The Tuolumne Utilities District (District) received copies of the tentative Waste Discharge Requirements (WDRs) and Monitoring and Reporting Program (MRP) for the Sonora Regional Wastewater Treatment Facility (WWTF). We appreciate the productive discussions with you and your colleagues at the Central Valley Regional Water Quality Control Board (Central Valley Water Board) as the District has planned and upgraded nearly all aspects of the WWTF during the past five years. Our goal is to provide high-quality and affordable service to the District's rate payers while protecting the environment. The WWTF now produces Title 22 disinfected tertiary recycled water for unrestricted beneficial reuse. Attached to this letter please find the following attachments.

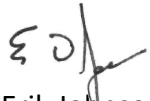
- Attachment A – Written comments on the tentative WDRs
- Attachment B – Written comments on the tentative MRP
- Attachment C – MS Word file of the Tentative WDRs tracking the changes requested in Attachment A and other minor edits
- Attachment D – MS Word file of the Tentative MRP tracking changes requested in Attachment B and other minor edits.
- TUD WWTF Total Dissolved Solids Data – Excel Spreadsheet of total dissolved solids measurements cited in Attachment A
- EAAS Schematics – Drawings showing the underdrain and leak detection system for the WWTF's extended aeration activated sludge basins
- WWTF Site Plan – Site plan for the WWTF cited in Attachment A for inclusion in the WDRs
- WWTF Flow Schematic – Flow schematic for the WWTF cited in Attachment A for inclusion in the WDRs

The District has several comments, as explained in further detail in Attachments A and B. The District's highest priority comments are summarized below.

1. The WDRs describe and assess impacts of the District's reclamation system that will be covered under the Reclamation General Order (WQO 2016-0068-DDW), thus it is not clear what facilities are and are not covered under the WDRs. Various revisions are needed throughout to clarify that the WDRs cover only the WWTF up to its discharge (on-site) to the District's reclamation system.
2. The WWTF upgrades were designed per conversations with Central Valley Water Board staff in 2019 so that they met Best Practicable Treatment Control (BPTC) and would avoid costly additional features like installing a groundwater monitoring well network on-site at the WWTF. Consequently, the District asserts that it is unnecessary to require groundwater monitoring wells to be installed at the WWTF.
3. Central Valley Water Board staff required the District to provide an antidegradation analysis for the WWTF's storage and land application of recycled water, following detailed guidance. The antidegradation analysis in the WDRs, including the section on BPTC, should cite and rely on the analysis prepared by Robertson-Bryan, Inc. on behalf of the District. The antidegradation analysis provided in the WDRs needs to be revised for consistency with USEPA guidance and because it asserts degradation to groundwater where other sources of water (besides the WWTF) are clearly the cause. Almost all of the antidegradation analysis pertains to the District's reclamation system (not covered by the WDRs), so it could also be removed from the WDRs and retained for subsequent use when permitting the TUD reclamation system under the Reclamation General Order.
4. The design flow criteria of the upgraded WWTF are intended to apply to the treatment process, so the District requests that the WDRs' flow limitations (based on the design criteria) be applied to WWTF effluent instead of influent coming from the service area.
5. Nuanced turbidity specifications pertaining to the use of coagulation should be removed from the WDRs because they are applicable to tertiary granular media filtration systems. The District installed disc filters at the WWTF that are approved by the Division of Drinking Water (DDW) as acceptable alternatives to granular media filtration.
6. Like other publicly owned treatment works (POTWs) in the Sierra Nevada foothills, salinity is relatively low in WWTF recycled water. Consequently, the District will investigate switching to the Conservative Compliance Pathway of the Salt Control Program. Consistent with feedback the District received from Central Valley Water Board staff, several revisions are needed to the WDRs to allow the District to switch compliance pathways if approved by the Central Valley Water Board's Salt Control Program division.

We appreciate your consideration of these and the District's other comments. Given the scope and importance of these comments, we ask that a meeting be scheduled at your earliest convenience to seek resolution before the WDRs are adopted by the Central Valley Water Board. Should you have any questions, please reach out to me or the District's consultant, Paul Bedore (paul@robertson-bryan.com or (916) 405-8918).

Sincerely,

A handwritten signature in black ink, appearing to read 'Erik Johnson', with a stylized flourish at the end.

Erik Johnson, P.E.
District Engineer

cc:

Cruz Romero, Central Valley Water Board
Paul Bedore, Robertson-Bryan, Inc.
Jennifer Batt, Tuolumne Utilities District

GENERAL COMMENTS

Comment 1. Extent of Coverage. The tentative Waste Discharge Requirements (WDRs or Order) do not clearly communicate the activities covered by the Order. The following is our understanding from discussions with Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff:

1. The tentative WDRs regulate only the treatment, production, and discharge of recycled water from the Sonora Regional Wastewater Treatment Facility (WWTF) into the Tuolumne Utilities District (TUD or District) reclamation system. The regulated discharge is to the reclamation system, onsite at the WWTF.
2. The TUD reclamation system (distribution system, storage ponds, Quartz Reservoir, Land Application Areas (LAAs)), and recycled water irrigation at the LAAs is currently covered by the District's Master Reclamation Permit (Order R5-2002-0202) and will be covered by the State Water Resources Control Board (State Water Board) Reclamation General Order (WQO 2016-0068-DDW). The Reclamation General Order will also cover any future additions to the reclamation system, including storage facilities and recycled water use.

The above understanding needs to be clearly communicated in the tentative WDRs. The tentative WDRs should define the discharge location to the reclamation system and that the Order only covers the production (not distribution, storage, and use) of recycled water. This Order should be revised to define and cover only the activities regulated by these WDRs and to remove findings, discussions, descriptions applicable to the facilities, activities, and recycled water use regulated and covered by the Master Reclamation Permit/Reclamation General Order. Finally, we suggest titling these WDRs as "Waste Discharge Requirements Order for the Production of Recycled Water" to clearly communicate that disposal is not covered by these WDRs. For example, the San Diego Regional Water Board issued a "*Master Reclamation Permit with Waste Discharge Requirements for the Production and Purveyance of Recycled Water*" to Olivenhain Municipal Water District in Order R9-2003-0007, a facility that recycles all of its treated effluent. The WWTF is in the same situation, recycling all of its treated effluent.

Comment 2. WDRs Effective Date. The WDRs need to include an effective date, as has been done for the Monitoring and Reporting Program. The District is not likely to be fully prepared by the tentative effective date of May 1, since the new WDRs will be adopted at the April 18/19 Central Valley Water Board hearing. The District requests that the effective date be moved to the beginning of the next quarter (July 1). This will give the District time to prepare for monitoring and operating under the new WDRs, including adjustments to its SCADA system to record and output the necessary parameters (i.e., averages, minimums, etc.)

REGULATORY HISTORY

Comment 3. Item 7, p. 2. Current Orders. This item should be removed because it is redundant to the last sentence in Item 6.

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Comment 4. Item 8, p. 2. Report of Waste Discharge. This item should identify that the District proactively solicited feedback from Central Valley Water Board staff on key regulatory and design elements for the upgraded facility at a meeting with representatives from the District and PACE engineering on June 27, 2019. This is because the District incorporated feedback from the Central Valley Water Board into the design of the facility's upgrades, particularly the 45-mil liners used for the facility's basins and a leak detection system under the new aeration basins. This item should also explain that Tuolumne Utilities District (TUD) provided information to supplement the Report of Waste Discharge in a March 8, 2023, memorandum prepared by Robertson-Bryan, Inc. Requested edits are shown in the attachment.

Comment 5. Item 9, p. 3–4. Acreage for Irrigating at WWTF Design Flow. This item should clarify the acreage of LAAs assumed for the current permitted disposal rate of 1.84 mgd and the acreage needed to irrigate with the facility's design flow of 2.0 mgd. This clarifies that only 80 additional acres are needed to irrigate with the 2.0 mgd design flow, whether the Teleli Golf Course or another LAA is brought online. Proposed edits are shown below. Requested edits are shown in the attachment.

FACILITY AND DISCHARGES

Comment 6. Item 14, p. 4. Service Area. This items should be revised because TUD provides sewer service to only about 13,000 residents, a subset of the 44,000 residents supplied drinking. Crystal Falls should also be added to the list of areas served and the WDR should also indicate that the facility receives hauled-in septage. Requested edits are shown in the attachment.

Comment 7. Item 17, p. 5. Original WWTF Description. Various revisions are needed to more accurately describe the WWTF as originally constructed. Requested edits are shown in the attachment.

Comment 8. Item 18, p. 5. Current WWTF Description. The WWTF described as "current" is inaccurate and should be replaced with the description of the proposed facility in Items 27 – 42. The original WWTF, which is no longer in use, will be demolished after the upgrades are complete. The work to convert the anaerobic digesters to aerobic digestion is currently underway, which is the last remaining improvement.

Comment 9. Item 20, p. 5. Jamestown Sanitary District (JSD) Wastewater Treatment Facility (WWTF) description. The description of the JSD WWTF should be revised to accurately convey that it was upgraded to provide tertiary treatment and that it discharges to TUD's reclamation system under the JSD-TUD agreement. The current description states that JSD only discharges disinfected secondary effluent to Quartz Reservoir, but the facility was upgraded with capabilities to provide tertiary treatment. The District reviewed JSD's comment letter on the proposed WDRs. Requested edits are shown in the attachment to address JSD and TUD's comments.

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Comment 10. Item 23 and Table 2, p. 6. Historic Monthly Average Effluent Data. The source of this data should be communicated, as it is for other data tables in the WDRs.

Comment 11. Table 3, p. 7. Effluent Characterization Data. The “Average” and “Minimum” column headers should be switched in this table.

Comment 12. Item 26, p. 7. Coliform Data Discussion. This discussion should be revised to communicate that the WWTF upgrades were substantially complete and startup initiated in December 2023, with the exception of the solids digester upgrades. The temporary modifications were necessary during construction, which should also be explained. Requested edits are shown in the attachment.

Comment 13. Item 27, p. 8. Upgraded WWTF Description. The description of the upgraded facility should be revised for accuracy with the WWTF as it was constructed. Among other clarifications, the headworks was replaced, not improved; former Pond A was an emergency storage basin; and the new Extended Aeration Activated Sludge (EAAS) basins were constructed with a leak detection system. Moreover, the description should be edited with the understanding that the upgrades are complete, with the exception of the digester upgrades. Requested edits are shown in the attachment.

Comment 14. Item 28, p. 8. Soil Excavation and Reuse. This item should be removed or be revised to accurately convey that soil was excavated from the site as a planned part of the upgrades construction, not because the soil had a notable odor. Though a portion of the soil had a notable odor, it was only in a certain area. TUD had planned all along to reuse soil at the site for construction. We suggest removing this item since it is a finding from the construction project and not pertinent to WDRs. If retained, requested edits are shown in the attached document.

Comment 15. Item 29, p. 9. Treatment Process Description. This item should be removed or combined with Item 27 because it is redundant. Moreover, the description of the old treatment process should be removed because it is not relevant to the current WDRs. Secondary clarification should be included in the description of the new facilities, while residual addition is accomplished by chlorine disinfection since the recycled water is not dechlorinated. If retained, requested edits are shown in the attached document.

Comment 16. Item 30, p. 9. Reclamation Area Exhibits. Consistent with Comment 1, this Order should only provide exhibits for the facility as covered under the WDRs. Attachment A, showing the end use reclamation areas, should be removed because these areas are covered not under the WDRs, but under the Master Reclamation Permit (current) or Reclamation General Order (future). As noted in comments below, the LAAs shown in Attachment A are inaccurate. The public, the District, and regulators unfamiliar with the current WDR renewal process will be uncertain on the extent of facilities that are

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covered by the WDRs, and therefore, what parts are enforceable. This item should indicate that the District will use recycled water at areas covered under the Master Reclamation Permit or under the Reclamation General Order. Requested edits are shown in the attached document.

Comment 17. Item 31, p. 9-10. Table 7. Design Flow Rates. The 1.84 mgd Average Dry Weather Flow (ADWF) design criterion listed in Table 7 is incorrect and should be changed to 2.0 mgd. The term “Storm Dilution” should be removed from the Maximum Daily Flow parameter because the design criteria in and of itself is called “Maximum Daily Flow.” This item should note that flow in excess of the design criterion will be diverted to the ESB for temporary storage and treated as soon as possible by the WWTF treatment units. Requested edits are shown in the attachment.

Comment 18. Item 33, p. 10. EAAS Basin Description. This description should be updated to clarify that the 45-mil liner and a leak detection system was incorporated into the design on these basins following discussions with Central Valley Water Board staff on June 27, 2019. Design plans for the EAAS basin are attached. Requested edits are shown in the attachment.

Comment 19. Item 34, p. 10. Emergency Storage Basin. Additional information should be provided in the description of the ESB to communicate to minimize concerns over impacts from its operation. The District will rely on the freeboard in the *EAAS basins*, as designed, to accommodate most wet weather flows, thereby minimizing use of the ESB for inflow storage. The filter backwash is secondary-treated effluent with low BOD, TSS, and nitrogen. Once it enters the ESB, filter backwash will flow downgradient in a shallow stream to the drain at the toe of the basin for retreatment. This results in negligible head pressure on the basin liner from the filter backwash, negligible ponding, and minimal potential for leakage. Requested edits are shown in the attachment.

Comment 20. Item 35, p. 11. New Groundwater Monitoring at the WWTF. TUD requests that this item be removed because TUD accommodated Central Valley Water Board WDR permitting staff concerns about potential impacts to groundwater from the upgraded WWTF by installing 45-mil liners on the ESB and EAAS basins, installing a closed underdrain system below the EAAS basins to detect leaks, and moving all sludge dewatering, handling, and storage into a new solids building. These concerns were discussed with Board staff on June 27, 2019, before designing and constructing the WWTF upgrades. Additional site features, such as double-lining the EAAS basins, or installing a groundwater monitoring network, were not discussed or put forward as necessary to meet Best Practical Treatment and Control (BPTC). The requirements for a groundwater monitoring network for the WWTF are above and beyond what is required for other POTWs in the Central Valley that have lined ponds. In 2023, the Central Valley Water Board approved that groundwater monitoring was only necessary in the case where storage or treatment ponds were unlined and used consistently (see Item B.1, p. E-30, *General Order for Municipal Wastewater Dischargers that Meet Objectives/Criteria at the Point of Discharge to Surface Water Order*; Order R5-2023-0025). In Order R5-2023-0025, the Board found that the continuous use of single-lined

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ponds and the intermittent use of unlined ponds at Publicly Owned Treatment Plants (POTWs) meets BPTC, will have limited potential to cause degradation, and complies with the State's Antidegradation Policy:

"Compliance with the General Order requirements will result in the use of best practicable treatment or control to prevent impacts to groundwater. To the extent there is limited degradation of high-quality waters despite implementation of these requirements, the limited degradation is consistent with the maximum benefit to the people of the state. Accordingly, the permitted discharge is consistent with State Water Board Resolution No. 68-16." (Order R5-2023-0025, p. F-57)

Hence, single-lined ponds, whether used continuously or intermittently, meet BPTC. The WWTF exceeds BPTC by having a closed drain system under the EAAS basins that can detect leaks and be used to trigger further investigation and repairs by the District. These efforts were intended to avoid installing, maintaining, and sampling groundwater at the WWTF, at great cost to the District and their rate payers (many of which constitute disadvantaged communities, as noted elsewhere in the WDRs). Hence, the District requests that this item be removed. The District also offers to include in the Liner Operation and Maintenance Plan its approach for utilizing the leak detection system for the EAAS basins (Item 8, p. 43) so that the Board's interest in ensuring they are not a source of groundwater contamination are met.

Lastly, Attachment G, specifications on well installation, should be removed from the WDRs.

Comment 21. Item 36, p. 11. Coagulant Use. The last sentence of this item should be revised because the District now plans to use coagulant as needed, not continuously. This will minimize salt loading to the TUD reclamation system. Requested edits are shown in the attachment.

Comment 22. Item 38, p. 11. Baffling Factor and CT. This item should be modified because TUD is considering pursuing DDW approval of a CT lower than 450 mg-min/L, which will require conducting a disinfection validation study and fluoride tracer study of the chlorine contact basins (CCBs) and obtaining DDW approval. This study is likely to show that the baffling factor is lower than 0.85. It is unnecessary to communicate the baffling factor in the WDRs, being pertinent to the District's Title 22 engineering report. Requested edits are shown in the attachment.

Comment 23. Item 39, p. 12. Discharge Location. This item should be revised because the WWTF does not discharge at an outfall. Moreover, revisions are necessary to communicate that the connection to the TUD reclamation system is the discharge point from the WWTF as regulated by the WDRs. Requested edits are shown in the attachment.

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Comment 24. Item 40, p. 12. Solids Handling Description. This item should be revised to accurately describe the solids equipment as it was designed and constructed, and to communicate that solids dewatering, handling, and storage occur in the new solids building, thus eliminating groundwater exposure to biosolids. Requested edits are shown in the attachment.

Comment 25. Item 41, p. 12. Sludge Drying Beds. This item should be revised to accurately convey that the two operable sludge drying beds retained onsite are concrete-lined and overlain with plastic drain tiles. All unlined drying beds have been demolished or decommissioned, thus eliminating the potential for underlying groundwater to be affected by sludge handling. Requested edits are shown in the attachment.

Comment 26. Item 42, p. 12. Solids Storage. This item should be revised to accurately describe that the solids are collected in a trailer that is housed and fully enclosed within the new solids handling building, thereby prevention biosolids exposure. Requested edits are shown in the attachment.

Comment 27. Item 44, p. 13. Collection System Maintenance. This item should be revised to also communicate that the District has installed several miles of cured-in-place pipe lining. Requested edits are shown in the attachment.

INDUSTRIAL PRETREATMENT CONSIDERATIONS

Comment 28. Item 46.b, p. 13. Interference or Upset. The definition of “interference” should be updated for consistency with the federal pretreatment program regulations in 40 CFR 403. According to 40 CFR 403, “interference” 1) inhibits or disrupts treatment, etc. and 2) causes a violation of the NPDES permit/WDRs or prevents sludge use and disposal according to regulations. Requested edits are shown in the attachment. Upon updating the definition, Item c (Sludge Management), can be deleted because it is redundant. Requested edits are shown in the attachment.

Comment 29. Item 46.d, p. 13. Pass-Through. This item should be revised to be consistent with the definition of “pass-through” in the federal pretreatment program regulations (40 CFR 403):

“The term Pass Through means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).”

The issue of pass-through is directly linked with causing violations of any requirement in an NPDES permit. The federal regulations do not define pass-through as causing an increase in degradation. TUD requests the changes shown in the attachment, consistent with 40 CFR 403.

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Comment 30. Item 47, p. 14. Industrial Pretreatment Program Regulatory Statute and Policy. The State Water Board’s Industrial Pretreatment Program guidance should be cited in this section to describe the regulatory requirements that would trigger the Central Valley Water Board to require an Industrial Pretreatment Program of TUD. There are several factors to be considered when determining the applicability of an Industrial Pretreatment Program, not just the biosolids sample data described in Item 47 of this section. The District requests that the following language be added to Item 47.

In accordance with CCR, Sections 2233 and 2235.3, a pretreatment condition shall be included in non-NPDES WDRs for all POTWs with an average dry weather flow greater than 5 mgd. A POTW with a design flow of 5 mgd or less may be required to develop and implement a pretreatment program if RWQCB staff finds that the POTW’s influent from industrial users causes treatment process upsets, effluent violations, or sludge contamination. In this case, the pretreatment program will be established pursuant to the procedures described in the State Water Board’s SOP for approving new pretreatment programs, Section 2 (Standard Operating Procedure for Approval of New Program Submittals and Program Modification, April 2019).

Currently, there are reportedly no significant industrial wastes being discharged to the Facility, and hence no treatment process upsets, effluent violations, or sludge contamination associated with industrial users. TUD provided biosolids sample data from January 2018 to March 2023 which indicated that metal concentrations in the biosolids were well below pollutant concentrations identified in Table 3 of 40 CFR 503.13. Consequently, an Industrial Pretreatment Program will not be required at this time. However, this Order requires the Discharger to report any proposed new industrial discharges and, if directed by the Executive Officer, to develop an Industrial Pretreatment Program regulating such discharges. Additionally, this Order also may be subsequently revised to require compliance with an approved program, if necessary.

WATER RECYCLING CONSIDERATIONS

Comment 31. Item 51, p. 15. Reclamation Requirements. Per Comment 1, this item should clarify that the WDRs cover production of recycled water, since being covered under WDRs (containing recycled water production specifications) is requirement of the Reclamation General Order. Requested edits are shown in the attachment.

Comment 32. Item 53, p. 15. JSD Recycled Water. This item should communicate that the JSD WWTF is regulated by WDRs Order R5-2021-0046.

SITE-SPECIFIC CONDITIONS

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Comment 33. Item 61, p. 16. Source Water. This items should clarify that the data is for source water to the TUD drinking water system, that it was compiled from TUD’s Consumer Confidence Reports (CCRs), and how the averages were calculated, whether arithmetic average concentration or flow-weighted average. This item should also indicate that a portion of the population served by the WWTF are connected to private wells. Requested edits are shown in the attachment.

Comment 34. Item 62, p. 17. Groundwater Background. Along with the domestic and irrigation wells described in this item, the District’s monitoring wells should similarly be described as located within fractured bedrock, which accounts for the high variability in groundwater characteristics within a site. Requested edits are shown in the attachment.

Comment 35. Item 63, p. 17 and Table 11. Groundwater Monitoring Network and Exhibits. Consistent with Comment 1, this item should be revised to communicate that the TUD reclamation system and LAAs are not regulated by the tentative WDRs, but these activities are regulated under the Master Reclamation Permit. Without this clarification, the tentative WDRs can be misconstrued as regulating the reclamation system and recycled water use, though they only cover wastewater treatment and recycled water production at the WWTF. Table 11 should also be titled as the groundwater monitoring network for the TUD reclamation system, since there is not groundwater monitoring network at the WWTF. Requested edits are shown in the attachment.

Comment 36. Item 65, p. 18. Groundwater Elevations & Flow Direction. More than one groundwater monitoring report should be used as the basis for describing the typical groundwater gradient. Currently, the gradient is characterized using data only from the May 2022 quarterly groundwater monitoring event. The current Master Reclamation Permit (item h, p. 22) requires that background groundwater be characterized using at a minimum, four quarterly monitoring events.

Comment 37. Table 12, p. 19. Quartz Reservoir Monitoring Well Table. The title of this table should be revised to communicate that it contains groundwater monitoring data. As is, the title (“Quartz Reservoir”) implies the data is from the reservoir itself. Sulfate should also be added to the table because variation in sulfate levels helps explain why TDS varies substantially across these wells and illustrate that due to the fractured bed-rock geology of the groundwater aquifer, downgradient and upgradient wells may not be hydraulically connected, as discussed in Comment 38. Requested edits to the title are shown in the attachment.

Comment 38. Item 67, p. 19. Groundwater Characterization of Quartz Monitoring Wells. This item should be revised because the weight-of-evidence suggests that wells M-1 and M-1R are not influenced by Quartz Reservoir. Currently, this item concludes that Quartz Reservoir is a source of chloride to wells M-1 and M-1R. Were Quartz Reservoir the primary source of chloride or other minerals to wells M-1 and M-1R, then the mineral characterization of WWTF effluent and these wells would be similar. However,

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this is not the case. Average TDS and sulfate levels are substantially higher in wells M-1 and M-1R, compared to Quartz Reservoir (**Table 1**). Further, average chloride levels in WWTF effluent are lower than in M-1 and M-1R. Sulfate and chloride are conservative constituents in terms of groundwater mobility—they are stable mineral anions resistant to adsorption, making them mobile in groundwater. Were Quartz Reservoir a consequential water source to wells M-1 and M-1R, TDS, chloride, and sulfate levels in the wells would be lower and similar to levels in WWTF effluent. Therefore, this item should be revised to communicate that the wells M-1 and M-1R are primarily influenced by water sources other than Quartz Reservoir. Requested edits to the title are shown in the attachment.

Table 1. Average chloride, TDS, and sulfate concentrations in WWTF effluent and wells M-1 and M-1R.

Source	Chloride (mg/L)	TDS (mg/L)	Sulfate (mg/L)
WWTF Effluent	66	305	17
M-1	79	629	118
M-1R	77	590	119

The tentative WDRs (Item 108) cite USEPA’s Unified Guidance as the regulatory guidance that the District shall use to analyze groundwater data. However, the WDRs have not engaged USEPA’s Unified Guidance¹ to determine whether it is appropriate to use upgradient wells to characterize background conditions and, subsequently, compare them with downgradient wells to assess degradation due to water in Quartz Reservoir. TUD’s Antidegradation and Background Groundwater Analysis Report (RBI 2023)² followed Unified Guidance and determined that a simple up-gradient/down-gradient approach is not warranted for the District’s groundwater monitoring areas. It would have been simpler had Unified Guidance supported a up/downgradient approach. However, this was not justified because there is high variability in concentrations among wells at a particular site. Moreover, in these areas groundwater flows through fractured bedrock and not simply through a porous sediment profile from one well to the next. Therefore, upgradient wells are not clear sources of groundwater to downgradient wells, and an intra-well analysis approach must be used to determine if water quality at a particular well is changing due to WWTF effluent/recycled water. The inadequacy of the up/down-gradient assessment approach is demonstrated by the fact that wells M-1 and M-1R differ in their characterization from wells M-2 and M-4, as well as from WWTF effluent. In this example, there is no clear hydraulic connection between up and downgradient water sources.

Comment 39. Item 68, Table 13, Item 69, and Table 14, p. 19–20. Groundwater Characterization of Rosasco and Gardella Monitoring Wells. Similar to previous comments, it would be appropriate to add sulfate to the constituents summarized in these tables and to note that there is high variability in constituent concentrations among wells, indicating the wells are influenced by multiple sources of

¹ Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (USEPA, 2009)

² RBI, 2023. *Antidegradation and Background Groundwater Analysis Report for the Tuolumne Utilities District Quartz Reservoir and Land Applications Areas*. Prepared for the Central Valley Regional Water Quality Control Board, on behalf of the Tuolumne Utilities District. August.

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groundwater. The titles of Table 13 and Table 14 should also clarify that the data is for monitoring wells. Groundwater gradients should be characterized by more than one monitoring event. Some requested textual edits are shown in the attachment, though additional edits are needed for requests pertaining to sulfate data and groundwater elevations.

BASIN PLAN IMPLEMENTATION

Comment 40. Items 80–85, p. 22–23. Water Quality Objectives. This section should include language from the Basin Plan explaining that the water quality objectives discussed therein do not require improvement over naturally occurring background concentrations. This clarification provides the regulatory support for the WDRs’ groundwater limitations section (Section G, page 37), which includes the language in question. Below is the requested language that should be added to the beginning of this section.

According to Section 3.2 of the Basin Plan, the WQOs discussed in this section do not require improvement over naturally occurring background concentrations.

Comment 41. Item 87, p. 24. Salt Control Program. This item should be revised to allow the District to participate in either the Alternative or Conservative Compliance Pathway of the Salt Control Program. Though the District has participated in the Alternative Path to-date, the Antidegradation and Background Groundwater Analysis (RBI 2023) identified that TDS in the WWTF discharge is consistently less than the TDS threshold for the Conservative Path and at similar levels to other POTWs that currently participate in the Conservative Path. Hence, the District notified Board staff of their plans to further explore switching to the Conservative Path and Board staff agreed that the WDRs would not prohibit the District from switching compliance pathways if approved by the Central Valley Water Board’s Salt Control Program division. The WDRs should be revised because they include language throughout *requiring* the District to participate in the Alternative Path, thereby preventing the District from switching pathways. Requested edits, including a reopener provision, are shown in the attachment.

Comment 42. Item 92, p. 25. Scope of Antidegradation Analysis. This section should be revised because the antidegradation analysis that has been provided does not pertain to the WWTF as regulated by the WDRs, but rather it applies to the District’s distribution, storage, and use of recycled water that is covered separately under the Master Reclamation Permit or will be covered under the Reclamation General Order in the future. The antidegradation analysis of the tentative WDRs (item 92) should be simplified and communicate that there is no-to-little degradation to groundwater at the WWTF due to the treatment process because all treatment units are concrete lined, lined with impermeable geotextile liners, and the EAAS have underdrains to detect leaks.

In general, most of the analysis in Item 92 should be removed or clarify that it is included only in support of the Central Valley Water Board’s future action to cover the TUD reclamation system under the

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Reclamation General Order. This is because the Reclamation General Order contains its own antidegradation analysis (Items 27 – 33; WQ 2016-0068-DDW) and indicates that the permitting authority (i.e., Central Valley Water Board) must agree that that antidegradation analysis applies to the reclamation system and recycled water use that are being permitted (i.e., the TUD reclamation system and recycled water use). In issuing coverage to the TUD reclamation system, the Central Valley Water Board must compare the degradation that occurs from the TUD reclamation system and recycled water use and confirm it is consistent with the Reclamation General Order. If antidegradation analysis of the TUD reclamation system indicates greater degradation will occur than contemplated in the Reclamation General Order, that the reclamation system must be permitted under an individual order. The Central Valley Water Board required the District to prepare an antidegradation analysis. The Antidegradation and Background Groundwater Analysis Report (RBI 2023)² provided to the Central Valley Water Board evaluated in each monitoring well network in detail and concluded that the degradation that could occur due to TUD recycled water distribution, storage, and use is consistent with the analysis provided in the Reclamation General Order.

The Central Valley Water Board should be consistent across their WDRs when the Reclamation General Order is separately issued to cover distribution, storage, and use of recycled water. Central Valley Water Board WDRs that include recycled water production specifications, in general, do not incorporate an antidegradation analysis of LAAs and recycled water use, if the recycled water distribution and use is separately covered by the Reclamation General Order. For example, Sacramento Regional Sanitation District's (Regional San) WDRs/NDPES permit (R5-2021-0019-02) was recently amended to cover recycled water production, though no antidegradation analysis on recycled water storage and use has been included in the amended permit. The facility was separately issued coverage under the Reclamation General Order because it plans to land apply up to 50,000 acre-feet per year (44 mgd) of recycled water. Central Valley Water Board permitting staff relied exclusively on the antidegradation analysis of the Reclamation General Order when issuing Regional San a Notice of Applicability (NOA) for the Reclamation General Order, not mentioning antidegradation at all in the NOA. Like Regional San, TUD's WWTF produces disinfected tertiary recycled water for irrigation. Hence, the antidegradation analysis for TUD's reclamation system should be removed from the tentative WDRs because the WDRs only cover *production* of recycled water. Recycled water distribution, storage, and use will be covered under the Reclamation General Order.

Comment 43. Item 92, p. 25. Antidegradation Analysis. At the request of Central Valley Water Board staff, TUD spent considerable resources to provide the Board an antidegradation analysis (RBI 2023)² consistent with the data assessment approaches required by USEPA's Unified Guidance—the groundwater analysis resource cited by the tentative WDRs in Item 108 (p. 30). The District's antidegradation analysis is not cited in Item 92 and few aspects of the District's antidegradation analysis have been incorporated into the WDRs. Whether antidegradation language is retained in the WDRs or not, the Board's antidegradation analysis for the District's reclamation system should cite and rely on

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the antidegradation analysis prepared by RBI on behalf of the District. No feedback from the Central Valley Water Board has been received on the District's antidegradation analysis.

The antidegradation analysis included in Item 92 for the TUD reclamation system and recycled water use is inconsistent with the groundwater assessment approach supported by USEPA's Unified Guidance. This is partly explained in Comment 38—the characteristics of the monitoring well networks do not support using a simple comparison of upgradient and downgradient wells. Section 7.2.2. of the District's Antidegradation and Background Groundwater Analysis Report (RBI 2023)² evaluated whether each TUD monitoring well network should be subject to an inter-well (up/downgradient analysis) or intra-well (trend analysis within a single well) approach. For all three well networks, the intra-well analysis was justified. The WDRs' antidegradation analysis differs substantially from the antidegradation analysis prepared by the District, which was consistent with the USEPA's Unified Guidance. Since the WDRs required TUD to evaluate groundwater data using Unified Guidance, the WDRs should explain why the Board's groundwater analysis deviated from Unified Guidance by using an inter-well approach (up/downgradient analysis) in spite of the detailed antidegradation analysis provided by TUD that, again, is consistent with USEPA's Unified Guidance. Unified Guidance is the Board's standard resource for analyzing groundwater data whether for an antidegradation analyses or other purpose.

Additional comments on the antidegradation analysis are as follows.

- It is not appropriate to average monitoring data from all upgradient wells, among all three distinct monitoring well networks, into a single value to characterize background groundwater quality. Groundwater quality often differs from well-to-well within an area and among areas. Hence, averaging data from all upgradient wells is not appropriate. Similarly, it is inappropriate to group and average data from all downgradient wells into a single average value for each constituent. Unified Guidance does not indicate that data from multiple wells across a region of highly variable groundwater quality should be averaged.
- Table 16 is the data used in the WDRs antidegradation analysis and should include average WWTF effluent quality. Currently, Table 16 uses a *single* WWTF effluent sample (collected on June 15, 2022) to characterize effluent quality for the antidegradation analysis. In contrast, Table 16 characterizes average groundwater quality data using 15 years of data and hundreds of samples.
- The maximum EC for proposed effluent quality in Table 16 (1,000 $\mu\text{mhos/cm}$) is not accurate. Average effluent EC (627 $\mu\text{mhos/cm}$) from the upgraded facility will not differ from the current facility since the upgrades will not increase effluent salinity. Moreover, the proposed nitrate levels will be substantially lower than 10 mg/L and this should be noted in a footnote. The 10 mg/L value for nitrate is the maximum value for total nitrogen, which is a combination of nitrate, total kjeldahl nitrogen, and ammonia.

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- The salinity characterization provided in Item 92.a and supported by Table 16 should be revised to incorporate the District’s vast number of TDS measurements. Currently, Table 16 only characterizes salinity in terms of EC. The District does not monitor electrical conductivity (EC) in groundwater wells for reporting under the Master Reclamation Permit; only TDS monitoring is required in groundwater, so it is unclear where the groundwater measurements for EC in Table 16 are from. EC measurements are used by the District’s groundwater sampling contractor to help determine if a well has been sufficiently purged prior to monitoring, but TUD’s groundwater monitoring reports do not provide final EC measurements that have been reviewed for reporting and compliance use by TUD or their groundwater consultant.

In contrast to EC, the District monitors TDS routinely on WWTF effluent because the Master Reclamation Permit requires TUD to quantify TDS loading to the LAAs (data is cited in Table 3 of the WDRs). The public would be better informed were they provided the understanding that on average, TDS in WWTF effluent (305 mg/L) does not exceed the Salt Control Program Conservative Compliance Pathway threshold of 450 mg/L. Moreover, TDS as well as individual constituents composing salinity, require evaluation to determine if WWTF effluent is the cause of degradation at any wells downgradient of Quartz Reservoir or the LAAs. Though TDS is increasing at some groundwater wells (i.e., M-1 and M-3; up to 600–700 mg/L), the WWTF effluent is not the cause of these exceedances, considering effluent TDS averages 305 mg/L. Hence, in cases where TDS is increasing, the District’s reclamation activities and recycled water use will decrease TDS in underlying groundwater. The increasing trends in TDS (upward toward 600–700 mg/L at M-1 and M-3) cannot be caused by effluent in Quartz Reservoir that has a TDS of 305 mg/L.

Lastly, it would not be appropriate for this item to indicate that the WDRs require participation in the P&O study since Board staff indicated the WDRs would not obligate the District to one or the other compliance pathways of the Salt Control Program. This item can simply indicate that the District is required to comply with the Salt Control Program without reference to a compliance pathway.

Comment 44. Item 94, p. 28. Best Practicable Treatment and Control (BPTC). Several items listed as measures that constitute BPTC are not treatment or control measures, and therefore should be removed from this list.

- “Compliance” and “monitoring” for compliance with prohibitions, requirements, limitations or thresholds in the WDRs does not constitute BPTC.
- Using certified operators is not a source control or treatment measure.
- Irrigation at agronomic rates is a BPTC measure that does not apply to the *production* of recycled water covered under the WDRs, rather it applies to BPTC measures for recycled water distribution and use under the Reclamation General Order.

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Guidance³ provided by Central Valley Water Board staff to the District on preparing the antidegradation analysis clarifies that BPTC measures are source control or treatment measures that are implemented by the permittee.

“If a discharge will degrade groundwater quality but will not cause an exceedance of one or more water quality objectives, the discharger must demonstrate that all practicable treatment or control measures have been implemented or will be implemented such that the Board can consider these measures to represent the “best practicable treatment or control” (BPTC) of the constituents of concern. [...]

If degradation has occurred or is expected to occur describe the following: [...]

Any facility design features and operational practices that reduce the potential for groundwater degradation (treatment or control). Such features might include salinity source control, other pollutant source control, advanced treatment, disinfection, concrete treatment structures, and pond lining systems, etc.”³

Since most of the items listed in Item 94 are not source control or treatment measures, the list should be replaced with the complete list of BPTC measures provided in Section 8 of the District’s Antidegradation and Background Groundwater Analysis Report (RBI 2023)², as show below.

The Discharger implements, or will implement, ~~as required by this Order~~ the following BPTC measures, which will minimize the extent of water quality degradation resulting from the Facility’s continued operation:

- ~~a. Improved treatment of domestic wastewater (i.e., tertiary treatment of wastewater) including nitrification denitrification and disinfection;~~
- ~~b. Compliance with effluent limitations for flow, BOD₅, TSS, total coliform, and total nitrogen;~~
- ~~c. Groundwater monitoring at the WWTF to monitor the potential impacts of the Facility’s discharge on the underlying groundwater;~~
- ~~d. Recycling of disinfected tertiary treated effluent at agronomic rates on landscape and agricultural areas;~~
- ~~e. Compliance with the Salt and Nitrate Control Programs;~~
- ~~f. Compliance with a Salinity Action Level of 800 µmhos/cm;~~
- ~~g. Regular testing of all lined basins at the Facility, and~~
- ~~h. Regular testing of all lined basins at the Facility, and~~

³ Technical Information for a Report of Waste Discharge for Discharges to Land in the WDR (Non 15) Program (Individual WDRs Only)

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- ~~i. Use of certified operators to ensure proper operation and maintenance of the WWTF.~~
- a. A new headworks with 6 mm bar screen and vortex grit removal.
- b. A new emergency storage basin with 3-million-gallon storage capacity, which includes a 45-mil polypropylene liner. The basin will be used occasionally and temporarily, allowing the District to visibly inspect for damage when empty.
- c. Two new extended aeration activated sludge basins with new aeration blowers for BOD and nitrogen removal using nitrification/denitrification. The basins have polypropylene liners and an underdrain system to detect for.
- d. Two new 65-foot diameter secondary clarifiers constructed of concrete to provide solids settling.
- e. Two new woven polyester media disk filters that will provide tertiary filtration to achieve effluent quality consistent with Title 22's tertiary disinfected recycled water standard.
- f. Two new chlorine contact basins, sodium hypochlorite metering pumps, and sodium hypochlorite storage tanks that will achieve Title 22's tertiary disinfected recycled water standard.
- g. New solids handling and treatment facilities that include two rehabilitated aerobic digesters that will produce Class B biosolids. Biosolids will be thickened via membrane thickening equipment installed in the digesters and dewatered with a new sludge dewatering screw press. The sludge dewatering screw press is located in a new solids handling building. Dewatered biosolids will accumulate in a semi-truck trailer under cover of this building.
- h. Two back-up biosolids dewatering beds are lined with concrete and allow for dewatering and drying in the event the screw press is offline, which will occur infrequently. Any water collected in the drying beds is sent back to the RWWTF headworks using the drying bed's tile drain system.

OTHER REGULATORY CONSIDERATIONS

Comment 45. Item 97 & 98, p. 29. Salinity-related Discussion Regarding Water Code Section 13149.2.

This item should be revised to notify local disadvantaged communities that the District is exploring and may apply to transition to the Conservative Compliance Pathway of the Salt Control Program.

Enrollment in the Conservative Compliance Pathway would benefit disadvantaged communities—complying with this pathway shows that the District can meet lower salinity effluent limitations using the WWTF, which is funded by the community's fees. Disadvantaged communities should not continue to fund on-going participation in the Alternative Compliance Pathway if their rates already support a POTW that can comply with the stringent requirements of the conservative compliance pathway.

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Item 98 should discuss effluent TDS because it demonstrates the low salinity levels of the effluent relative to the lowest applicable threshold to protect AGR. Moreover, Item 98 should be revised in light of the fact that an inter-well analysis (up and downgradient data comparison) is not justified by USEPA's Unified Guidance, as explained in previous comments. References to the secondary MCL should be removed because the District's effluent does not exceed an EC of 900 $\mu\text{mhos/cm}$. It would better serve the District's disadvantaged rate payers to know that the wastewater utility they fund is protecting groundwater quality from degradation in terms of salinity, consistent with findings in the District's Antidegradation and Background Groundwater Analysis Report (RBI 2023)². Requested edits are shown in the attachment.

Comment 46. Item 103, p. 31. Stormwater. This item should be revised to indicate that the District enrolled under State Water Board Order 2014-0057 DWQ. Requested edits are shown in the attachment.

REQUIREMENTS

Comment 47. Item B.2, p. 33. Discharge Prohibitions. Discharge Prohibition 2 is redundant to the requirements of Section G, Groundwater Limitations, and should be removed or justification provided in the WDRs for including the duplicative requirements.

Comment 48. Item C.1, Table 17, p. 34. Flow Limitation. The flow limitations of the WDRs should apply to the WWTF's effluent, not influent, as is typical for POTWs regulated by Central Valley Water Board WDRs. The WWTF is designed to treat 2 mgd Average Dry Weather Flow (ADWF) and 5 mgd maximum daily flow, but the ESB allows the WWTF to receive influent flows in excess of the WWTF design criteria. Wet weather flows that exceed the treatment capacity of the WWTF will be diverted temporarily to the ESB until it can be returned into the WWTF treatment system. Effluent flows thus represent the flows being treated by the WWTF and should be used for compliance monitoring relative to the flow limitations of the WDRs. Additionally, the term "Peak Daily Flow (Maximum Daily)" is inconsistent with Table 7 of the WDRs and should be revised to "Maximum Daily Flow."

Comment 49. Item C.1, Table 17, p. 34. ADWF Flow Limitation Compliance Determination. The WDRs need to explain how TUD will determine compliance with the ADWF limitation. As with other Central Valley Water Board orders, this should be determined using flows into the WWTF when groundwater is at or near normal and runoff is not occurring (e.g., during July–September). Requested edits to Note 1 for Table 17 are shown in the attachment.

Comment 50. Item D.1, p. 35. Effluent Limitations. This item should state that the effluent limitations apply to the facility's discharge to the TUD reclamation system, rather than to the Quartz Reservoir and/or LAAs. This is because the WDRs specifically regulate the discharge into the TUD reclamation

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system at the 20 inch flange connection on-site at the WWTF. Using the term “Quartz Reservoir and/or Use Areas” could be interpreted as this permit regulating recycled water use or storage at these areas. Since the Master Reclamation Permit (current) or Reclamation General Order (future) covers recycled water storage and use in these areas, the WDRs need to consistently communicate that they regulate discharge into the TUD reclamation system. WDRs for the JSD WWTF correctly apply the effluent limitations to the discharge to the “TUD Reclamation System.” Requested edits are shown in the attachment.

Comment 51. Item E, p. 35. Salinity Action Level. This item should state that the salinity action level is evaluated as a calendar year average, which is consistent with the salinity action level as applied in other WDRs issued by the Central Valley Water Board. Without this clarification, the District does not know whether compliance should be evaluated following each EC monitoring event or at the end of the calendar year. Additionally, Items 2–4 of this section should be renumbered as Items 1.a–1.c because these are items that must be included in the Salinity Action Level Report, if triggered by an exceedance of the action level. Requested edits are shown in the attachment.

Comment 52. Item F.6, p. 36. Discharge Specification 6. This item should state that the discharge to the *reclamation system* shall be disinfected tertiary recycled water, not its discharge to Quartz Reservoir. As described previously, this order covers recycled water discharged into the TUD reclamation system (at its entry point onsite at the WWTF), and the reservoir is downstream of the discharge location, offsite, and a component of the reclamation system. Requested edits are shown in the attachment.

Comment 53. Item F.7, p. 37. Title 22 Turbidity Specifications. These specifications should be revised because the WWTF uses Veolia (formerly I. Kruger) Hydrotech Disc Filters, a conditionally accepted filtration technology that can be used as an alternative to granular media filtration to achieve the Title 22 turbidity specifications for disinfected tertiary recycled water in Section 60301.320. The turbidity specifications in Title 22, section 60304 for when coagulation is/is not used pertain to granular media filtration, not alternative filtration technologies approved by the DDW and operated according to the manufacturer’s requirements. Therefore, the District requests that the Board coordinate with DDW on this matter and for the turbidity specifications be revised as shown in the attachment by removing specifications for when coagulation is not used.

Comment 54. Item F.8, p. 37. CT and Modal Contact Time. The District requests that this item allow alternative CT and modal contact time for the WWTF, if approved by DDW. The District is considering conducting a study and requesting DDW approval of a low-CT disinfection approach. The requested edits would allow alternative CT and modal contact times to be used at the WWTF (if approved by DDW) without modifying the WDRs. Requested edits are shown in the attachment.

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Comment 55. Item F.9, p. 37. pH in Unlined Ponds. The pH requirements for unlined ponds should be removed because there are no unlined ponds or basins used at the WWTF, as regulated by the WDRs.

Comment 56. Item F.10 and F.11, p. 37. Discharge Specifications Pertaining to Recycled Water. Discharge Specification 10 requiring waste discharges to remain in authorized water recycling use areas does not pertain to the WWTF as regulated by the WDRs, and therefore, should be modified. Discharge Specification 11 pertaining to the application of recycled water to use areas applies to TUD facilities not regulated by the WDRs and it should be removed. The WDRs do not regulate the recycling use areas, as described in previous comments. Since the Master Reclamation Permit and/or the Reclamation General Order are used to regulate the District’s reclamation system and recycled water use, it is confusing, causes ambiguity for the District, and is duplicative regulation to include requirements for the recycled water use areas in the WDRs. Requested edits are shown in the attachment.

Comment 57. Item F.13, p. 38. Dissolved Oxygen (DO) Specification. This item should be removed because there is no relationship between DO levels in the WWTF EAAS/ESB and the presence of odors at the WWTF boundaries. Contrarily, certain portions of the aeration basins may have DO levels less than 1 mg/L, but this would occur as part of the EAAS treatment process. The WWTF ESB and EAAS basins are separated from the boundary of the facility, so low DO in these structures and associated odor (if any), may have no perceptible influence on odors at the facility boundary. The most direct way to determine if there are odors is for District staff to monitor and report whether odors are present.

Comment 58. Item F.14, p. 38. Staff Gauge Requirement. The requirement to install and record measurements of pond depth using a staff gauge should apply only to the ESB since the EAAS basins are designed to monitor and control water levels. Moreover, it will be challenging for the District to maintain a staff gauge in the EAAS basins.

Comment 59. Item F.17.e, p. 39. Mosquito Abatement District. The requirement to coordinate with the mosquito abatement district should be removed because TUD is not aware of a mosquito abatement district with jurisdiction over the region in which the WWTF is located.

Comment 60. Item H.7, p. 41 and Item I.8, p. 43. Maintenance of Basin Liners. The requirement to maintain and evaluate the liners of the ESB and EAAS basins should not be applied to the sludge drying beds. The only sludge drying beds onsite are concrete lined.

The District must develop a SOP for evaluating the integrity of the basin liners, but it is not currently clear if this will be some sort of test or other approach. It would be more appropriate to require an “evaluation” of the liners instead of a “test,” given that this approach will need to be developed. Further, the basin liners are new, so they do not need to be evaluated starting in 2024. The District proposes starting the evaluations in 2027, three years after adoption of the WDRs and completion of the

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WWTF upgrades. The evaluation plan required in Section I.8 (Provisions) is due in August 2024, which is insufficient time to evaluate the basins before the wet season. The timeframe for evaluating the pond liners in Item I.8 should be once every three years, consistent with Item H.7. Requested edits are shown in the attachment.

Comment 61. Item I.3, p. 42. Salt Control Program Provision. Even though this item correctly states that the District is currently participating in the Alternative Compliance Pathway, the requirement to participate in the Salt Control Program should not prevent the District from switching to the Conservative Compliance Pathway. This would be supported by deleting the reference to the Findings and discussion of the Prioritization and Optimization Study, or by including language stating this Order does not prevent the District from switching to the Conservative Compliance Pathway. Requested edits are shown in the attachment.

Comment 62. Item I.5 and I.6, p. 42. Groundwater Monitoring Work Plan and Well Installation Report. For the reasons described in Comment 20, these items should be removed.

Comment 63. Item I.7, p. 43. Additional Acreage to Support 2.0 mgd ADWF Capacity. This item should be revised so that the District can add any additional land use areas, not just the Teleli Golf Course, to justify the increase in the WDRs' flow limitation to the WWTF design flow of 2.0 mgd. This request is supported by Comment 5, above. Requested edits are shown in the attachment.

Comment 64. Item I.9, p. 43. Standard Operating Procedure (SOP) for Anaerobic Digestion of Hauled-in Materials. The special provision requiring an SOP for receiving hauled-in anaerobically digestible material for injection into an anaerobic digester should be removed. This item is not applicable to the WWTF because the facility's upgraded digesters (under construction) will use aerobic digestion, not anaerobic digestion.

Comment 65. Attachment A. Site Location Map. Various corrections are needed to this map.

- The terms "Sonora Regional Wastewater Treatment Plant" in the title should be changed to "Sonora Regional Wastewater Treatment Facility. "Sonora_WWTP" (legend) and "Sonora Regional WWTP" (label on map) should be changed to "Sonora Regional WWTF."
- "Quartz_Res" should be fully described as "Quartz Reservoir."
- "Sonora_LAAs" should be changed to "TUD LAAs."
- The LAAs are not consistent with the LAA map provided to Central Valley Water Board staff on June 21, 2022. Large portions of property are incorrectly designated as LAAs. The WDRs Site Location Map designates an entire parcel as the LAA, whereas the LAAs make up only portions of a parcel. Since the LAAs are not regulated by the WDRs, they should be removed. It will be simpler to show only the Gardella and Rosasco LAAs.

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Comment 66. Attachment B. Site Plan. TUD requests that the Google Earth image used in the WDRs as a site plan be replaced with the site plan included with this comment package. The aerial Google Earth imagery shows the facility under construction, which is a misrepresentation of the facility as it will exist throughout the life of the WDRs. Lastly, the site plan should not be defined as “proposed” because plan is accurate to the facility that will be operated under the WDRs.

Comment 67. Attachment C. WWTF Process Flow Diagram. TUD requests that the process flow diagram be replaced with the diagram prepared by TUD that is included with this comment package. Various aspects of the current diagram in Attachment C are inaccurate. Individual components of the TUD reclamation system should not be shown in the process diagram because these components are not covered under the WDRs. New components could be added in the future, as allowed by the Reclamation General Order. Rather, the WWTF should be shown in this diagram as discharging into the TUD reclamation system, which is the terminal point of discharge regulated by the WDRs. Lastly, the diagram should not be defined as “proposed” because it is accurate to the facility that will be operated under the WDRs.

Comment 68. Attachments D, E, and F. Maps of Quartz Reservoir, the Rosasco Use Area, and the Gardella Use Area. The Central Valley Water Board should consider removing these attachments from the WDRs because the WDRs do not regulate or authorize the distribution, storage, or use of recycled water in these areas. If these attachments are retained, the District requests that a note be added to each attachment clarifying that they are included for illustration purposes only and that distribution, storage, and use of recycled water in these areas is regulated under the Master Reclamation Permit or, in the future, under the Reclamation General Order.

INFORMATION SHEET

Comment 69. Scope of Facilities Covered by the WDRs, p. IS-1. For the reasons explained Comment 1, the information sheet should include a clear statement of the facilities that are covered by the WDRs and those covered under the permits applicable to the reclamation system. TUD requests that the following paragraph be included at the end of the first section of the Information Sheet.

This Order rescinds and replaces WDRs Order No. 94-192, and it provides WDRs coverage to the WWTF’s discharge into the TUD reclamation system. The TUD reclamation system and recycled water distribution, storage, and use will continue to be covered under the Master Reclamation Permit until it is rescinded and replaced by the State Water Resources Control Board Order WQ 2016-0068-DDW Water Reclamation Requirements for Recycled Water Use (Reclamation General Order).

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Comment 70. Paragraph 3, p. IS-1. Modified Water Balance. This item should be corrected to indicate the existing use areas total 603 acres, not 630 acres. Requested edits are shown in the attachment.

Comment 71. Modifications to the Sonora Regional WWTF, p. IS-2. Facility Description. TUD requests various revisions to this section to communicate that the upgrades are complete and more clearly describe the facility as it currently exists. Furthermore, the new emergency storage basin was lined with a 45-mil polypropylene liner, not polyethylene. Requested edits are shown in the attachment.

Comment 72. Groundwater Considerations, p. IS-3. Monitoring Well Description. This section should communicate that groundwater wells are not currently needed at the WWTF since the facility was constructed with impermeable materials and meets BPTC. This helps minimize concerns about there not being monitoring wells onsite. This section should also clarify that the TUD monitoring well network is for monitoring TUD facilities covered under the Master Reclamation Permit, because storage and use of recycled water at the Quartz Reservoir and the LAAs is not covered by the WDRs. The discussion of the Master Reclamation Permit well monitoring network and data is pertinent to the Central Valley Water Board's future action of replacing the Master Reclamation Permit with the Reclamation General Order, so this discussion could be removed from the WDRs and used in the future. Requested edits are shown in the attachment.

Comment 73. Groundwater Considerations, p. IS-4. TDS Discussion. The discussion of TDS levels in wells around Quartz Reservoir should be revised because, contrary to statements in this section, TDS is trending upward at wells M-2 and M-4 (as explained in the District's Antidegradation and Background Groundwater Analysis Report; RBI 2023²). Moreover, the TDS in the WWTF effluent is sufficiently low (305 mg/L) to not cause the substantial increases in TDS occurring at wells downgradient from the reservoir (629 mg/L at M-1 and 590 mg/L at M-1R). Storage of recycled water in the reservoir is not adversely impacting downgradient water quality in terms of TDS.

Comment 74. Groundwater Considerations, p. IS-5. Nitrate Discussion. The discussion of nitrate in the wells around Quartz Reservoir should explain that the elevated nitrate is not due to storing recycled water in the reservoir. Elevated nitrate co-occurs with elevated TDS in wells M-1 and M-1R. As explained in Comment 38 and Comment 73, groundwater at M-1 and M-1R arises from a source with much higher TDS and sulfate levels than contained in WWTF effluent. Therefore, nitrate at these wells is not likely due to storage of recycled water in Quartz Reservoir. As explained in the District's Antidegradation and Background Groundwater Analysis Report (RBI 2023)², the California Department of Public Health (CDPH) has been investigating elevated nitrate levels in drinking water wells throughout the region. Requested edits are shown in the attachment.

Comment 75. Wastewater Reclamation, p. IS-6. Discussion of TUD Reclamation System. Various corrections are needed to the description of TUD's reclamation system.

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- The recycled water ponds at the LAAs are better described as ponds than reservoirs, given their small capacity.
- JSD WWTF effluent flows by gravity into Quartz Reservoir, rather than being pumped in by TUD.
- TUD proposes to use tertiary effluent to irrigate agriculture properties in addition to landscape areas.

Requested edits are shown in the attachment.

Comment 76. Discharge Prohibitions, Limitations, Discharge Specifications, and Provisions, p. IS-7.

Various corrections are needed to this section to be consistent with the WDRs.

- The influent flow limitation should be changed to an effluent flow limitation, with a numeric value of 1.84 mgd for the ADWF limit.
- The 23 MPN/100 ml limit for total coliform is not to be exceeded more than once in a 30-day period.
- The groundwater monitoring work plan and well installation report should be removed per previous comments.
- There is no provision in the WDRs for an “Unlined Sludge Surfaces Work Plan” so this item should be removed. No unlined sludge handling or storage surfaces are present at the WWTF.

Requested edits are shown in the attachment.

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Comment 1. Table 1, p. 2. EFF-001 Location. The EFF-001 location is described as “prior to discharge to TUD’s reclamation system (i.e., Quartz Reservoir and Use Areas)” but the reclamation system also includes the components that distribute the recycled water and could include storage reservoirs constructed in the future. Hence, the term “(i.e., Quartz Reservoir and Use Areas)” is not synonymous with the TUD reclamation system and should be removed. The WDRs regulate the discharge into the TUD reclamation system and this monitoring will occur on-site at the WWTF. Requested edits are shown in Attachment D.

Comment 2. Table 2, p. 3. Influent Monitoring. Measurements of pH should occur on grab samples because the hold-time is 15 minutes. Monitoring for total nitrogen on the influent should be removed because the WDRs do not contain influent limitations on total nitrogen or requirements on percent removal. Few, if any, WDRs for POTWs with tertiary level treatment in the Central Valley contain influent monitoring for total nitrogen and no justification has been provided on why this is necessary. Requested edits are shown in Attachment D.

Comment 3. Table 3, p. 4. Effluent Monitoring. Various revisions are requested to this table.

- The footnote on flow monitoring is inapplicable because the WWTF has an effluent flow meter.
- Since TDS is not subject to any limitations in the WDRs and no justification is provided for including monitoring for it, the District requests that the frequency of TDS monitoring be changed to once per month.
- The District requests that monitoring for total nitrogen, Total Kjeldahl Nitrogen, and nitrate be changed to once per month, consistent with the frequency of nitrate monitoring in WDRs for POTWs of similar size and levels of treatment (disinfected tertiary) in the Central Valley (Lathrop, Order R5-2022-0004-01; Galt, Order R5-2017-0085-016; El Dorado Hills WWTP, Order R5-2017-0085-002; Deer Creek WWTP, Order R5-2017-0085-006).
- The District requests that monitoring for Total Organic Carbon be removed since the WDRs do not contain any limitations, nor even mention TOC.
- The three consecutive turbidity monitoring footnotes as written are not applicable and should be removed for reasons described in comments on the tentative WDRs in Attachment A. The Title 22 requirements for granular media filtration about turbidity monitoring and diversion in association with coagulation use are not applicable.
- Only parameters monitored on both the influent and effluent should be monitored on the same day.
- The footnote on mineral analysis should identify if unfiltered or filtered samples should be tested.
- The District requests that monitoring for metals be removed from the WDRs because no explanation is provided pursuant to Water Code section 13267 on why the monitoring is required. The WDRs do not include effluent limitations for metals nor discuss any concerns that WWTF effluent is causing degradation of groundwater in terms of metals. Biosolids data

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discussed in the WDRs indicates metals in WWTF effluent (pre-tertiary upgrade) are compliant with federal thresholds. Finally, most POTWs under Central Valley Water Board WDRs do not include routine monitoring metals unless the WDRs contain an effluent limitation for a particular metal. Iron and manganese are discussed in the WDRs, but this will be monitored with the standard minerals analysis.

Comment 4. Section C, p. 5. Public Supply Water Monitoring. The District requests that supply water monitoring be removed from the WDRs. This monitoring is already conducted as part of TUD's water supply operations and is a duplication of TUD staff time and resources to sample, compile, and report. More importantly, it is not necessary for the District to provide this data to the Central Valley Water Board. As demonstrated in Item 61 and Table 10 of the tentative WDRs, Board staff compiled the District's drinking water supply data from the District's Consumer Confidence Reports (CCRs) for 2017–2021. These CCRs are readily available on the internet. If the Central Valley Water Board maintains that this information is necessary, the District requests that instead of monitoring quarterly, that the District be allowed to fulfill the supply water monitoring by just submitting their CCR with the WDRs' annual report. In removing supply water monitoring, the associated reporting requirements should be removed. Lastly, Table 4 is mis-labelled as Quartz Reservoir monitoring (RES-001).

Comment 5. Section D, p. 5. Sludge/Biosolids Monitoring. The District requests that monitoring of biosolids be removed. The WDRs explain that the USEPA, and not the Central Valley Water Board, has oversight of federal biosolids reuse regulations in 40 CFR 503:

“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.”

No explanation is provided for requiring the District to monitor biosolids. The District's biosolids are land-applied by a third-party contractor under 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”. The contractor is responsible for monitoring the District's biosolids in compliance with the contractor's State-issued permit and ensuring that land-applied biosolids meet the ceiling thresholds.

The biosolids monitoring required by the tentative Monitoring and Reporting Program is for every single off-site shipment of solids, rather than a standard frequency. The metals that must be tested are not listed, but rather the District is referred to an unspecified metals list in the recycled water regulations (Title 22). Collectively, the various details of the proposed monitoring are not clearly associated with any programs or regulatory oversight of the Central Valley Water Board pertaining to WWTF operations. Hence, monitoring for biosolids should be removed from the WDRs. In removing biosolids monitoring, the associated biosolids reporting requirements should be removed.

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Comment 6. Section III, p. 7. Signatory for Analyses Conduct by TUD. The District does not employ a person designated as the “chief of the laboratory,” so they request that the Chief Plant Operator be allowed to certify analyses conducted at the WWTF by the District.

Comment 7. Section III. A.1.b and A.2.b, p. 7. Monthly Average BOD and TSS. The requirement to calculate and report monthly average BOD and TSS for the influent and effluent, as well as the percent removal, should be removed. The WDRs do not include an effluent limitation for percent removal or any threshold pertaining to monthly average BOD and TSS.

Comment 8. Section III.A.2.a, p. 7. Electrical Conductivity (EC) and Total Nitrogen Reporting. Item 2.a should be removed because there are no limitations or action levels in the WDRs that pertain to the 12-month rolling average of total nitrogen and EC in the WWTF effluent. The WDRs include a monthly average limitation for total nitrogen and calendar year average action level for EC. Hence, it would be appropriate to calculate the monthly average total nitrogen concentration and the calendar-year average EC.

Comment 9. Section III.B, p. 10. Monitoring and Reporting Program Effective Date. The District may not be fully prepared by the May 1 effective date to operate and monitor consistent with the new WDRs following the April 18/19 Central Valley Water Board hearing in which the WDRs and Monitoring and Reporting Program will be adopted. The District requests that the effective date be moved to the beginning of the next quarter (July 1). This will give the District time to prepare for monitoring and operating under the new WDRs, including adjustments to its SCADA system to record and output the necessary parameters (i.e., averages, minimums, etc.)

Comment 10. Section IV, p. 16. 24-hour Composite Samples. The District requests being allowed to collect the 24-hour composite samples using time-based compositing. This is because the Extended Aeration Activated Sludge (EAAS) basins are operated in a way to help minimize diurnal flow variations. The samplers are not currently connected to electrical signals from the flow meters. Requested edits are shown in the attachment.