

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**REVISED RESPONSE TO COMMENTS FOR
TENTATIVE ORDER NO. R9-2021-0100
WASTE DISCHARGE AND WATER RECLAMATION REQUIREMENTS
FOR THE CITY OF OCEANSIDE
ADVANCED WATER PURIFICATION FACILITY
INDIRECT POTABLE REUSE FOR GROUNDWATER RECHARGE
SAN DIEGO COUNTY**

California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) staff prepared responses to the comments received regarding Tentative Order No. R9-2021-0100, *Waste Discharge and Water Reclamation Requirements for the City of Oceanside Advanced Water Purification Facility Indirect Potable Reuse for Groundwater Recharge, San Diego County* (Tentative Order No. R9-2021-0100). The San Diego Water Board received one letter from the City of Oceanside (City) during the public comment period. The City submitted its letter on October 14, 2021. Errata Sheet No. 2 to Tentative Order No. R9-2021-0100 (**Supporting Document No. 8**) includes the proposed changes to Tentative Order No. R9-2021-0100 in response to the City’s comments. This response to comments document has been revised and changes are shown below in underline/~~strikeout~~ format to indicate added and removed language, respectively.

No.	City of Oceanside’s Comment	San Diego Water Board Response	Action Taken
1	Tentative Order No. R9-2021-0100, Page 3, section III.D. – Prohibitions include “discharges of diluted concentrate to land are prohibited unless the Discharger submits an ROWD [Report of Waste Discharge] and receives WDRs [waste discharge requirements] for the discharge.” The City requests that the secondary storage ponds not be considered a land discharge. Secondary effluent is routine moved in and out of these ponds, and the City is currently performing a nitrogen study in this area as requested by the RWQCB [San Diego Water Board]	San Diego Water Board staff do not concur with the City’s request. The discharge of reverse osmosis (RO) concentrate to land (i.e., percolation ponds or unlined ponds) was not included in the May 19, 2020, <i>City of Oceanside’s Pure Water Oceanside Report of Waste Discharge (ROWD)</i> or the May 19, 2020, <i>City of Oceanside Pure Water Oceanside Title 22</i>	No changes made to Tentative Order No. R9-2021-0100.

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	<p>in Amendment to Order 93-07. If the City cannot use the plant ponds each day, what will be the options for operation of the Pure Water Facility? Could the plant ponds be used as emergency storage ponds?</p>	<p><i>Engineering Report</i> (Engineering Report) and therefore was not included as part of the regulated discharges under Tentative Order No. R9-2021-0100. If the City's intent is to use the percolation ponds as a discharge location for the temporary or final disposal location for the RO concentrate, the City must submit a ROWD in accordance with California Water Code section 13263.</p> <p>Any discharges of secondary treated effluent from the San Luis Rey Water Reclamation Facility (SLRWRF) to the percolation ponds are regulated under Order No. 93-07, <i>Waste Discharge Requirements for the San Luis Rey Wastewater Treatment Plant City of Oceanside San Diego County</i> (Order No. 93-07).</p> <p>The nitrogen study required by Addendum No. 1 to Order No. 93-07, <i>Waste Discharge Requirements for the San Luis Rey Wastewater Treatment Plant, City of Oceanside, San Diego County</i> (Addendum No. 1), requires an assessment of effects of total nitrogen on groundwater and surface water quality in areas near recycled water reuse sites. Assessing impacts from the</p>	

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		discharge of RO concentrate to land is beyond the scope of the requirements of Addendum No. 1.	
2	Page 5 Table 4 - The basis for the pH limitations in Table 4, note 7 are not correct. Note 7 refers to Title 22, section 60320.201(a)(1)(C), which describes the RO membrane test conditions for rejection, i.e., “an influent pH no less than 6.5 and no greater than 8.0.” This is not applicable to product water.	San Diego Water Board staff concur with the City’s comment. The 6.5 – 8.0 pH limitations in title 22 of the California Code of Regulations (Title 22), section 60320.201(a)(1)(C) are specifically for the RO influent. The effluent pH limit in section IV.C of Tentative Order No. R9-2021-0100 will be modified to 6.5 - 8.5, the secondary maximum contaminant level (MCL) for pH.	Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2 , errata No. 1.
3	Tables 5 through 9 list the effluent limitation at M-008 as a “Running 4-Week Average”. The tables should be footnoted or have a reference in the introductory paragraph to clarify the compliance methodology, as the frequency is monthly and if a monthly sample exceeds an MCL, confirmation sampling and weekly triggered sampling are required before the running 4-Week Average” calculation requirements in [Title 22, section 60320.121] 2(A) and 2(B) trigger additional reporting. <i>(2) For a contaminant whose compliance with its MCL is based on a running annual average, if the average of the initial and confirmation sample</i>	San Diego Water Board staff partially concur with the City’s comment. State Water Resources Control Board Division of Drinking Water (DDW) staff provided clarification, via email dated December 3, 2021, regarding the intent of recommendation No. 36 from their September 29, 2021 Corrected – Conditional Acceptance Letter for the City of Oceanside Pure Water Oceanside Project Engineering Report (Conditional Acceptance Letter). DDW staff clarified that the effluent limitations should be a running 4-week average for	The Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2 , errata No. 24 .

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	<p><i>exceeds the contaminant's MCL, or a confirmation sample is not collected and analyzed pursuant to this subsection, the GRRP shall initiate weekly monitoring for the contaminant until the running four-week average no longer exceeds the contaminant's MCL.</i></p> <p><i>(a) If the running four-week average exceeds the contaminant's MCL, a project sponsor shall describe the reason(s) for the exceedance and provide a schedule for completion of corrective actions in a report submitted to the Department and Regional Board no later than 45 days following the quarter in which the exceedance occurred.</i></p> <p><i>(b) If the running four-week average exceeds the contaminant's MCL for sixteen consecutive weeks, a project sponsor shall notify the Department and Regional Board within 48 hours of knowledge of the exceedance and, if directed by the Department or Regional Board, suspend application of the recycled municipal wastewater.</i></p> <p>The basis for the "Running 4-Week Average" limits for Tables 5 through 9 is unclear. These contaminants are regulated under the drinking water regulations as running annual averages.</p>	<p><u>all constituents with primary MCLs rather than a running annual average. The baseline sampling requirement establishes quarterly sampling for constituents with MCLs and triggers weekly sampling upon exceeding an MCL. Tables 5 through 9 of Tentative Order No. R9-2021-0100 will be modified to include a footnote clarifying the compliance methodology for the running 4-week average.</u></p> <p>However, for nitrate, nitrite, nitrate plus nitrite, perchlorate, chlorite, asbestos, lead, and copper, the calculations will be based on a running 4-week average, as recommended by the State Water Resources Control Board Division of Drinking Water (DDW) in the September 29, 2021 Corrected Conditional Acceptance Letter for the City of Oceanside Pure Water Oceanside Project Engineering Report (Conditional Acceptance Letter).</p>	
4	<p>Page B-2, Figure B-2 is outdated and should be updated for the Final Order. The City offered</p>	<p>San Diego Water Board staff concur with the City's comment.</p>	<p>Tentative Order No. R9-2021-0100 will be modified as</p>

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	updated figures during administrative draft comments.		described in the Errata Sheet No. 2 , errata No. 3.
5	Page B-3, Figure B-3 is outdated and should be updated for the Final Order. The City offered updated figures during administrative draft comments.	San Diego Water Board staff concur with the City's comment.	Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2 , errata No. 4.
6	Page C-1, Figure C-1 is outdated and should be updated for the Final Order. The City provided a more current version in the February 2021 Title 22 report submitted to the RWQCB.	San Diego Water Board staff concur with the City's comment.	Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2 , errata No. 5.
7	Page D-2, Section I.B.6- language should be consistent with the conditional approval letter from the Division of Drinking Water. This should read "Prior to operations or another timeframe approved by the Division, the City must adopt a resolution establishing (1) a zone of controlled drinking water well construction, and (2) a zone of potential controlled drinking water well construction, including private wells, consistent with 22 CCR §	San Diego Water Board staff do not concur with the City's comment. The City provided the San Diego Water Board with an October 22, 2021 letter which agreed that the language in Tentative Order No. R9-2021-0100 does not need to be revised. Tentative Order No. R9-2021-0100 requires the City to	No changes made to Tentative Order No. R9-2021-0100.

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	<p>60320.200(e). In addition, the City must coordinate with the San Diego County Department of Environmental Health (SDCDEH), prior to operations and regularly as needed, to administer the primary boundary representing a zone of controlled drinking water well construction and the secondary boundary representing a zone of potential controlled drinking water well construction, pursuant to 22 CCR § 60320.200(e). The City must provide the necessary boundary map(s), locations of the Project's monitoring wells, and locations of drinking water wells within a two years travel time of the Project based on groundwater flow directions and velocities expected under the Project's normal operating conditions (3 [million gallons per day] MGD or lower) as needed to SDCDEH."</p> <p>This language was drafted by Water Rights attorneys and approved by the DDW. Please see the September 29, 2021 conditional acceptance letter issued to David Gibson, Executive Officer.</p>	<p>adopt an ordinance rather than a resolution prior to discharge. The ordinance has the legal authority to restrict the construction of groundwater wells, while a resolution lacks that authority.</p>	
8	<p>Page D-2 Section I.B.6 – The City is currently in the process of adopting an ordinance rather than a resolution. It is anticipated that drinking water well restrictions will be in place in December 2021. The City is working with the County of San Diego Department of Environmental Health and Quality (DEHQ) to enact an exclusion zone for private potable water wells. Additionally, this is not a requirement of the conditional approval letter.</p>	<p>San Diego Water Board staff do not concur with the City's comment.</p> <p>Please see response to comment No. 7.</p>	<p>No changes made to Tentative Order No. R9-2021-0100.</p>

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9	<p>Page D-5 Section IV.G suggesting changing this language to read “The Discharger must inspect the UVT [Ultraviolet transmittance] meter at least weekly and check the UVT meter results against a reference benchtop or field unit of equal or greater accuracy to the installed UVT meter, to document accuracy. The Operation Optimization Plan (OOP) must include the tolerance and response actions to the UVT meter results.”</p>	<p>San Diego Water Board staff concur with the City's comment.</p> <p>Tentative Order No. R9-2021-0100 will be modified in accordance with DDW's Conditional Acceptance Letter. The word <i>benchtop</i> has been removed from section IV.G and any field unit of equal or greater accuracy to the installed UVT meter can be used to document accuracy.</p>	<p>Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2, errata No. 6</p>
10	<p>Page D-7 Section VI.E.3 suggest allowing cross-connection certifications by the American Backflow Prevention Association (ABPA) and the American Society of Sanitary Engineers (ASSE) in addition to certifications by AWWA [American Water Works Association].</p>	<p>San Diego Water Board staff concur with the City's comment.</p> <p>The San Diego Water Board and DDW agree that a cross connection specialist can be certified by AWWA or an organization with equivalent certification requirements. Tentative Order No. R9-2021-0100 will be modified in response to this comment.</p>	<p>Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2, errata No. 7.</p>
11	<p>Page D-13 VIII.A.i -The City agrees these are required for the project per the Conditional Acceptance Letter, but these are not requirements of the OOP per Title 22 regulations.</p>	<p>San Diego Water Board staff partially concur with the City's comment.</p> <p>Title 22 does not require the quick reference sheet be submitted as a part of the OOP. However, the quick reference sheet is recommended by Condition 40 of DDW's Conditional Acceptance Letter to summarize</p>	<p>No changes made to Tentative Order No. R9-2021-0100.</p>

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		<p>information presented in the OOP. Submitting the quick reference sheet with the OOP will allow for review and approval by DDW.</p>	
12	<p>Page D-13 VIII.A.1.i -The City agrees these are required for the project per the Conditional Acceptance Letter, but these are not requirements of the OOP per title 22 regulations.</p>	<p>San Diego Water Board staff do not concur with the City’s comment.</p> <p>Title 22 section 60320.222 states the OOP shall identify and describe the operations, maintenance, analytical methods, and monitoring necessary for the City to meet the requirements of Title 22. The membrane integrity testing and calculations used for determining log reduction values for pathogens are monitoring and analytical methods that are required by Title 22 to be included in the OOP.</p>	<p>No changes made to Tentative Order No. R9-2021-0100.</p>
13	<p>Page D-13 VIII.A.1.j – The City wants clarification if the AWT is “unmanned” and what response would look from AWT operators in an unmanned scenario.</p>	<p>San Diego Water Board staff concur with the City’s comment.</p> <p>DDW provided clarification to the City of Oceanside via email on October 19, 2021. The requirement pertains to the amount of training an operator should have regardless of being onsite or not.</p>	<p>No changes made to Tentative Order No. R9-2021-0100.</p>
14	<p>Page E-3 Table E.3 – Total nitrogen does not have an MCL; nitrate does. Nitrate and Nitrite have a</p>	<p>San Diego Water Board staff partially concur with the City’s comment.</p>	<p>Tentative Order No. R9-2021-0100 will be</p>

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	<p>California limit. The City requests the limit for total nitrogen be removed.</p>	<p>Total nitrogen does not have an MCL. The total nitrogen effluent limitation is based in part on the San Diego Water Board's Water Quality Control Plan for the San Diego Basin (Basin Plan) and in part on Title 22. The Basin Plan's groundwater quality objective is 45 milligrams per liter (mg/L) of nitrate in the Mission Hydrologic Subarea (HSA). A limit of 10 mg/L of total nitrogen is stoichiometric equivalent to 45 mg/L of nitrate. In the nitrogen cycle, 10 mg/L of total nitrogen can chemically convert to 45 mg/L nitrate. The Engineering Report predicted a final effluent concentration of 3 to 7 mg/L total nitrogen. Authorizing discharges in concentrations above 10 mg/L would be inconsistent with Antidegradation Policy in Resolution No. 68-16, <i>Statement of Policy with Respect to Maintaining High Quality of Waters in California</i> (Resolution No. 68-16) requirements.</p> <p>In addition, Title 22 section 60320.210 requires additional monitoring and corrective actions to reduce total nitrogen concentrations if the average effluent concentration of two consecutive samples exceeds 10 mg/L and requires cessation of subsurface</p>	<p>modified as described in the Errata Sheet No. 2, errata No. 9.</p>

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		application if the average of four consecutive samples exceeds 10 mg/L.	
15	Page E-4, Table E-1, Footnote 2- The City requests that this footnote include language to say monitoring only required if the applicable injection well is in use.	San Diego Water Board staff concur with the City's comment. Tentative Order No. R9-2021-0100 will be modified to only require monitoring at Monitoring locations MW-C-1 and MW-C-2 if Injection Well 006 is in use.	Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2 , errata No. 8.
16	<p>Page E-5, Table E-3, See section IV.C and IV.D requirements for TN [total nitrogen] - The City respectfully requests a 5-day turnaround time for Total Nitrogen. MCL data for nitrate and nitrite may be received in 72 hours, TKN however [total kjeldahl nitrogen] is a limiting factor for a 72-hour turnaround many laboratories cannot meet.</p> <p>The effluent must be a 24-hour composite sampled for TN twice per week three days apart and the analyses will be sent to a contract lab. Sunday's composite can be picked up on Monday and Thursday's sample can be picked up on Friday. The courier will not get the sample to the contract laboratory until late in the afternoon. Most contract labs do not perform TKN on the weekends. It will be challenging to find a lab who can analyze TKN first thing Monday and have results by the end of the day and the City is concerned with the ability to comply.</p>	<p>San Diego Water Board staff do not concur with the City's comment.</p> <p>Title 22 section 60320.210(a)(2) requires a total nitrogen sample be analyzed within 72 hours. Tentative Order No. R9-2021-0100 Attachment E, sections IV.C and IV.D are consistent with Title 22's requirement that samples be analyzed for total nitrogen within 72 hours.</p>	<p>No changes made to Tentative Order No. R9-2021-0100 in response to this comment.</p>

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	The City respectfully requests that the 72-hour turnaround be specified for only nitrate and nitrite while TN be on a 5-day turnaround time as TN has no MCL requirements.		
17	Pages E-7 & E-8 Table E.4 – Are nitrate and nitrite considered inorganic compounds with MCLs? Should be included with this table.	San Diego Water Board staff partially concur with the City's comment. Nitrate and nitrite are inorganic compounds with MCLs. However, all forms of nitrogen were placed in Table E-3 with the other constituents that also have groundwater quality objectives and/or secondary MCLs.	No changes made to Tentative Order No. R9-2021-0100.
18	Page E-14 Table E-11 – Is the water level difference between monitoring wells to be used for gradient and gradient calculations? Please provide clarification. Additionally, groundwater gradient is generally flowing west towards the Pacific Ocean, maps have been provided in Project documentation.	San Diego Water Board staff partially concur with the City's comment. The water level difference between monitoring wells will be used for groundwater gradient and gradient calculations. Gradient calculations will validate the City's modeling of the injection of advanced treated recycled water into groundwater.	No changes made to Tentative Order No. R9-2021-0100.
19	Page E-18, Table E-11, Footnote 1- the footnote is confusing and appears to be missing punctuation. The City requests language to be more clear in the final Order.	San Diego Water Board staff concur with the City's comment. San Diego Water Board staff agrees and Tentative Order No. R9-2021-0100 will be modified to specify that monitoring at	Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet

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		Monitoring Location MW-C-1 and MW-C-2 is required when Injection Well 006 is in use.	No. 2 , errata No. 10.
20	Page E-20, Table E-12- The City requests that Footnote 1 detail how long monthly samples will be required should detections be non-detect.	San Diego Water Board staff concur with the City's comment. Tentative Order No. R9-2021-0100 will be modified to remove footnote 1 consistent with the State Water Resources Control Board's (State Water Board) <i>Policy for Water Quality Control for Recycled Water</i> (Recycled Water Policy).	Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2 , errata No. 11.
21	Page F-2 Section II.A.1 – SLRWRF can now treat an annual average of 17.6 MG with the recent upgrade of Plant 2.	San Diego Water Board staff concur with the City's comment. Tentative Order No. R9-2021-0100 will be modified to reflect an annual average of 17.6 MGD.	Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2 , errata No. 14.
22	Page F-3- Fact Sheet, II(A)(2), paragraph 4 suggested changes to correct location of post stabilization: a. Delete the following sentence: "Following the RO system, the Discharger will add sodium hydroxide and calcium hydroxide to the effluent to stabilize and	San Diego Water Board staff concur with the City's comment. Tentative Order No. R9-2021-0100 will be modified as requested.	Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet

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	<p>increase the pH of the water prior to entering the AOP system.”</p> <p>b. Add this sentence after paragraph 5: “Post-stabilization chemicals are added to the conveyance pipeline upstream of the free chlorine disinfection compliance location. The free chlorine disinfection process considers the effect of post-stabilization on pH for free chlorine residual contact time determination.”</p>		<p>No. 2, errata No. 15.</p>
23	<p>Page F-4 – Section II.B.1 – The City requests that the following sentences be revised from “The target injection flowrate for an individual injection well is 1,160 gallons per minute, or approximately 1 MGD. The Discharger plans to install Injection Wells 001, and 003, and prior to Injection Well 006. If Injection Wells 001 and 003 can each achieve a sustained flowrate of 1.5 MGD, the installation of Injection Well 006 will be unnecessary. The injection wells will discharge to the deeper aquifer, which is capped by a groundwater basin-wide aquitard and will avoid raising groundwater elevations in the shallow aquifer.”</p> <p>To</p> <p>“The target injection flowrate for an individual injection well is 1,050 gallons per minute, or approximately 1.5 MGD. The Discharger has installed Injection Wells 001, 003, and 006. The</p>	<p>San Diego Water Board staff concur with the City’s comment.</p> <p>Tentative Order No. R9-2021-0100 will be modified as requested.</p>	<p>Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2, errata No. 16.</p>

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	injection wells will discharge to the deeper aquifer, which is capped by an aquitard and will avoid raising groundwater elevations in the shallow aquifer.”		
24	<p>Page F-4 – Section II.C – The City requests that the following sentences be revised from “The Discharger will install a third nested monitoring well, MW-C-1, in the deep and shallow aquifer prior to discharging if Injection Well 006 is installed.”</p> <p>To</p> <p>“The Discharger has installed a third nested monitoring well, MW-C-1, in the deep and shallow aquifer for discharges to Injection Well 006.”</p>	<p>San Diego Water Board staff concur with the City's comment.</p> <p>Tentative Order No. R9-2021-0100 will be modified as requested.</p>	<p>Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2, errata No. 17.</p>
25	<p>Page F-5 Table F-3 Fact Sheet, II(B)(1), paragraph 1 suggested changes as Well 006 has already been drilled:</p> <p>a. The Discharger plans to has installed install Injection Wells 001, and 003, and 006.</p>	<p>San Diego Water Board staff concur with the City's comment.</p> <p>Tentative Order No. R9-2021-0100 will be modified as requested.</p>	<p>Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2, errata No. 18.</p>
26	<p>Fact Sheet, II(C), paragraph 1 and Table F-3 suggested changes as Well 006 has already been drilled:</p>	<p>San Diego Water Board staff concur with the City's comment.</p> <p>Tentative Order No. R9-2021-0100 will be modified as requested.</p>	<p>Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet</p>

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	<p>a. The Discharger will install a third nested monitoring well, MW-C-1, in the deep and shallow aquifer prior to discharging to Injection Well 006.</p> <p>b. Delete footnote 1 on Table F-3.</p>		<p>No. 2, errata Nos. 17 and 18.</p>
27	<p>Suggested change in language to item G in Section IV. Existing language: The Discharger must inspect the UVT meter at least weekly and check the UVT meter results against a reference benchtop unit to document accuracy. The OOP must include the tolerance and response actions to the UVT meter results. Suggested revision: "The Discharger must inspect the UVT meter at least weekly and check the UVT meter results against a reference benchtop or field unit of equal or greater accuracy to the installed UVT meter, to document accuracy. The OOP must include the tolerance and response actions to the UVT meter results."</p>	<p>San Diego Water Board staff concur with the City's comment.</p> <p>Please see response to comment No. 9.</p>	<p>Tentative Order No. R9-2021-0100 will be modified as described in the Errata Sheet No. 2, errata No. 6.</p>