CHANGE SHEET

WASTE DISCHARGE REQUIREMENTS (WDRs) AND CEASE AND DESIST ORDER (CDO) FOR THE CITY OF SANTA PAULA (SANTA PAULA WATER RECYCLING FACILITY) FILE NO. 06-189

Change No.	Bates Page No.	Location	Action	Added or Deleted Text (additions are underlined, deletions are in strikeout)	Reason for Change
1	10.019	WDRs	Add/ Delete	... However, implementation of recycled water projects in the Santa Paula area will take time to fully implement, which will result in continued localized degradation. ~~Based on the results of the Chloride Model, after the mass reductions occur through recycling, the City proposes to degrade groundwater with respect to chloride within a 150-foot mixing zone radius of the percolation pond.~~ While groundwater within the 150-foot mixing zone adjacent to the percolation ponds will exceed the chloride groundwater quality objective,...	Clarification of the function of the City's Chloride Model.
2	10.022	WDRs	Add/ Delete	D. Effluent shall, at all times, be adequately disinfected and oxidized and shall meet the following ~~not exceed total coliform requirements as follows~~effluent limitations: 1. the median concentration of total coliform bacteria shall not exceed a most probable number (MPN) of 23 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed; and ~~1. A 7-day median of 2.2 most probable number (MPN) per 100 milliliters for two consecutive days;~~ ~~2. 23 MPN per 100 milliliters in more than one sample in any 30-day period; and~~ ~~3~~2. ~~240 MPN per 100 milliliters in any sample~~ the number of total coliform bacteria shall not exceed an MPN of 240 per 100 milliliters in more than one sample in any 30 day period.	Based on additional discussions with the City clarifying the design of the SPWRF's treatment system, staff propose maintaining the City's existing total coliform requirements in the tentative WDRs.

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				Samples shall be collected at a time when wastewater flow and characteristics are most demanding (e.g., during peak flows) on treatment facilities and disinfection processes.	
3	10.023	WDRs	Add/ Delete	E. A filtered wastewater shall be an oxidized wastewater that has been passed through a membrane so that the turbidity of the filtered wastewater does not exceed any of the following: 1. An average of 2 Nephelometric Turbidity Units (NTU) within a 24-hour period; ~~0.2 Nephelometric Turbidity Unit (NTU) more than 5 percent of the time within a 24-hour period; and~~ 2. 5 NTU more than 5 percent of the time within a 24-hour period; and ~~0.5 NTU at any time.~~ 3. 10 NTU at any time.	Based on additional discussions with the City clarifying the design of the SPWRF's treatment system, staff propose maintaining the City's existing turbidity requirements in the tentative WDRs.
4	10.085	CDO	Add/ Delete	J. Subsections F. and G., above, do not limit the City's ability to propose a Basin Plan amendment for Regional Board consideration prior to March 15, 2023. At any time during the term of this CDO, the City may propose a Basin Plan amendment that the Regional Board will consider, including ~~for Regional board consideration (e.g.,~~ an averaging period and/or a site-specific chloride GQO~~)~~ that would protects beneficial uses. As with subsection G., the City shall include supporting scientific and technical information and analysis demonstrating that beneficial uses would be protected, as well as documentation that such a proposal was discussed in detail by a stakeholder working group.	Regional Board staff proposes a minor editorial change to the tentative CDO concerning the Board's consideration of a proposed Basin Plan amendment, should the City propose one in the future.
5	10.116	Respons e Column of RTC	Add/ Delete	The Regional Board agrees to maintain the City's current effluent limitations for total coliform as follows: Effluent shall, at all times, be adequately disinfected and oxidized and shall meet the following effluent limitations: 1. the median concentration of total coliform bacteria shall not exceed a most probable number (MPN) of 23 per 100 milliliters utilizing the bacteriological results of the last	To revise the Board's response to the City's comment consistent with Change No. 2 concerning total coliform

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				seven days for which analyses have been completed; and 2. the number of total coliform bacteria shall not exceed an MPN of 240 per 100 milliliters in more than one sample in any 30 day period. Samples shall be collected at a time when wastewater flow and characteristics are most demanding (e.g., during peak flows) on treatment facilities and disinfection processes. The Regional Board, however, notes that the ~~The Regional Board disagrees and finds the effluent limits for total coliform and turbidity appropriate if the City is going to be successful in its intended recycling efforts. The~~ City plans to use the SPWRF's tertiary-treated and ultraviolet light disinfected effluent for recycled water applications including irrigation at a golf course and for irrigating crops. As on June 14, 2017, the City's proposed recycled water uses were enrolled under the statewide general water reclamation requirements (Order WQ 2016-0068-DDW). Section B.1.a of Order WQ 2016-0068-DDW states that recycled water distribution and use permitted under the General Order shall be in compliance with recycled water regulations. In order for the City to be successful in its planned recycling efforts to comply with the chloride limitations, its effluent will need to meet the most stringent recycled water total coliform criteria so as to be available for all applicable recycled water applications. ~~(including its subsequent revisions) contained in California Code of Regulations, title 22, sections 60001 – 60355. Section 60304 (Use of Recycled Water for Irrigation) specifies that recycled water used for surface irrigation, including irrigation at a golf course, shall be disinfected tertiary recycled water. Pursuant to Section 60301.230(b), disinfected tertiary recycled water shall not exceed the following total coliform criteria:~~ ~~1. 2.2 MPN/100 ml, 7-day median;~~ ~~2. 23 MPN/100 ml, 30-day;~~ ~~3. 240 MPN/100 ml, any sample.~~	

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				~~Based on the 5-year total coliform effluent data recorded between July 1, 2012 and June 30, 2017, the City would have had 63 exceedances of 2.2 MPN/100 ml, which is equivalent to 3.5% of all total coliform data. This indicates that the SPWRF is capable of consistently meeting the prescribed total coliform limitations.~~ ~~In order for the City to be successful in its planned recycling efforts to comply with the chloride limitations, its effluent must meet the most stringent recycled water total coliform criteria so as to be available for all applicable recycled water applications.~~	
6	10.118	Response Column of RTC	Add/ Delete	~~The Regional Board disagrees.~~ Turbidity effluent limitation is necessary, as it is critical for the effectiveness of ultraviolet light for disinfection and ultimately to ensure proper disinfection of the effluent. The SPWRF utilizes six membrane bioreactors (MBRs), which are the combination of a membrane process such as microfiltration (MF) with a biological wastewater treatment process. The MBR is based on the conventional wastewater process, and the separation of microorganisms, organic matter, suspended solids, and turbidity is performed by filtration with membranes. ~~The pore sizes of MF range from 0.1 to 10 µm. According to the SPWRF operator during a site inspection on December 28, 2015, the pore size of MF used at the SPWRF is less than 1 µm.~~ ~~Based on the 5-year turbidity effluent data recorded between July 1, 2012 and June 30, 2017, the City would have had 34 exceedances, which is equivalent to 1.86% of all turbidity data. This indicates that the SPWRF is capable consistently meeting the prescribed turbidity limitations.~~ ~~The turbidity requirement is critical for the effectiveness of ultraviolet light for disinfection.~~ High turbidity of wastewater would interfere with the UV light and cause dysfunction of disinfection. ~~The turbidity limits proposed in the tentative WDRs are based on Section 60301.320(b) when membrane technology is used to treat wastewater.~~	To revise the Board's response to the City's comment consistent with Change No. 3 concerning turbidity

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				However, the Regional Board agrees to revise the effluent limitations for turbidity in Section II.E. of the tentative permit, as follows: 1. An average of 2 Nephelometric Turbidity Units (NTU) within a 24-hour period; 2. 5 NTU more than 5 percent of the time within a 24-hour period; and 3. 10 NTU at any time. This is consistent with the City's existing turbidity requirements. ~~In order for the City to be successful in its planned recycling efforts to comply with the chloride limitations, its effluent must meet the most stringent recycled water total coliform criteria so as to be available for all applicable recycled water applications. The City's ability to meet the total coliform criteria is dependent on an effective disinfection system. Therefore, the proposed turbidity effluent limits are appropriate and reasonable.~~	