

Response to Comments

AMENDING WASTE DISCHARGE REQUIREMENTS
in ORDER Nos. R4-2007-0028 and R4-2010-0074 and
MONITORING AND REPORTING PROGRAM CI No. 9259

FOR NEW SANTA PAULA WATER RECYCLING PLANT
CITY OF SANTA PAULA DEPARTMENT OF PUBLIC WORKS (File No. 06-18)

Comment 1: City of Santa Paula’s January 9, 2012 redline revision of the Tentative WDR. Bold italics are the additions proposed by the City and strikeouts are the words they wish removed.		
Com ment No.	Comment	Response
1.1	<p>Make these changes to Finding 2 on Page 1:</p> <p>2. Currently, all disposal is to unlined ponds and thence to groundwater near the Santa Clara River. A reclaimed water system with irrigation on public land is planned. The water table is known to intersect the channel of the Santa Clara River and surface water quality may be affected by the groundwater quality beneath the site, <i>however, the direction of groundwater flow since the start of monitoring has indicated a flow direction that is generally away from the river for most of the year. Only for limited periods has the flow been parallel to the river.</i></p>	<p>Change, as proposed, not accepted.</p> <p>Finding 2 in the tentative WDRs has been revised based on the following literature review. Technical evidence of groundwater discharge into the Santa Clara River is extensive. Currently, all disposal is to an unlined pond and thence to the Sulphur Springs sub-basin of the Santa Paula Basin under the Santa Clara River. The Department of Water Resources’ Final Project Report and Update of Basin Plan for Piru, Sespe, and Santa Paula Hydrologic Areas from June 1989, reported historical groundwater discharge from the Santa Paula Basin with an annual average of millions of gallons per day (mgd) while surface flow averaged 3 mgd 2 miles downstream from the Plant. The 2003 USGS Water Resource Investigation Report 02-4136 simulated the groundwater/surface water flow of the area and found</p>

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		<p>that “..additional intermittent baseflow to rivers occurs at the subbasin boundaries, but the base flow generally infiltrates again in the downstream subbasin and is thus not considered a loss to the groundwater-flow system. During the wet periods, however, ground water discharges as a stream base flow to the Pacific Ocean. United Water Conservation District’s September 2011 Hydrological Conditions Report records a water table 14 feet below its highest level near the Plant, but rising one foot in the month of September 2011.</p> <p>The maps referenced by the City do not show the entire subsurface and only part of a mound in the water table beneath the percolation ponds. However, Santa Paula’s June 2010 report, Plate 29, for the facility does show a regional map with the circular discharge mound associated with the old treatment plant. The more complete view shows that while groundwater may move parallel to the river, it turns toward the river downstream, where it may be discharged to the surface water, under certain conditions.</p>
1.2	<p>Make these changes to Finding 3 on Page 1:</p> <p>3.The old Santa Paula Wastewater Reclamation Plant operated under National Pollution and Discharge Elimination System (NPDES) Order No. 97-041 for discharge to the Santa Clara River, adopted on April 7, 1997. More than 3000</p>	<p>Change accepted with sentence structure modification:</p> <p>“As a result, the new Santa Paula Wastewater Recycling Facility was built to discharge to groundwater <i>and began accepting partial flow in April 2010 and</i></p>

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	<p>violations at the old plant lead the Regional Board to engage in settlement discussion with the City of Santa Paula resulting in a Stipulated Consent Judgment and Final Order. As a result, the new Santa Paula Wastewater Recycling Facility was built to discharge to groundwater and became operational on May 22, 2007 <i>then started accepting all the flow from the City of Santa Paula on May 12, 2010.</i></p>	<p><i>then started accepting all the flow from the City of Santa Paula on May 12, 2010.</i></p>
1.3	<p>Make these changes to Finding 8 on Page 2:</p> <p>8.Local evidence of aquifer contamination demonstrates that chemicals used in these industries are already present in the subsurface, and beneficial uses need continued protection. Adjacent drinking water wells operated by the City of Santa Paula show water quality approaching drinking water standards for chloride, barium, sulfate, selenium, total dissolved solids, aluminum, cadmium, manganese, silica, and iron. In addition, groundwater monitoring for the New Santa Paula WRF shows that groundwater requirements were violated eighteen times in the first quarter of 2011 for chloride, aluminum, chromium, nitrate and nitrite, and sulfate.</p>	<p>Change not accepted, but Finding modified as follows:</p> <p>Finding 8 was modified to describe the current conditions, where the specified chemicals are detected, however “water quality approaching drinking water standards for” will be deleted. Maximum groundwater concentrations of selenium, aluminum, and cadmium as follows: Selenium: 53 micrograms per liter (µg/L) on 6/10/2010 in MW-1 with an MCL of 50. Aluminum:1,920 ug/L in MW-3 on 2/16/2011 with a MCL of 1,000 ug/L. Cadmium: 9 ug/L in MW- 1 on 6/8/2010 with an MCL of 5 ug/L.</p> <p>Other chemicals such as Nitrate and Total Dissolved Solids (48 milligrams per liter (mg/L) and 1,500 mg/L in California public water supply well no. 5610011-011, and 14 mg/L and 1,400 mg/L in 5610011-008) do approach drinking water standards of 45 mg/L and 1,500 mg/L, respectively, in wells pumping potable water in Santa Paula.</p>

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1.4	<p>Make these changes to Finding 10 on Page 3:</p> <p>10.While the new Santa Paula Wastewater Recycling Plant is designed for an average daily flow of 4.2 million gallons per day (mgd), less than 5 mgd, staff deems a pretreatment program appropriate because:</p> <p>(a) There is a continued risk <i>limited possibility</i> of system upset from the industrial sources addressed by the old plant’s pretreatment requirements.</p> <p>(b) The pretreatment program is designed to minimize effluent and groundwater violations for the Discharger, adding responsibility for compliance to industrial sources.</p> <p>(c) Contaminants such as aluminum, which might originate from the industrial facilities, are already found at elevated levels in the groundwater and may be from leaking influent sewer lines.</p> <p>(d) An additional industry and other unknown sources now discharge to the new Plant. The potential for impact to the groundwater is not known.</p> <p>(e) Despite regular inspections of the existing pretreatment program the Discharger did not completely conform to the federal requirements.</p> <p>(f) Additional costs are minimized because the Discharger</p>	<p>Change accepted, but <i>limited possibility</i> will be replaced by <i>possibility</i>, as follows:</p> <p>10.While the new Santa Paula Wastewater Recycling Plant is designed for an average daily flow of 4.2 million gallons per day (mgd), less than 5 mgd, Regional Board staff deems a pretreatment program appropriate because:</p> <p>(a) There is a possibility of system upset from the industrial sources addressed by the old plant’s pretreatment requirements.</p> <p>(b) The pretreatment program is designed to minimize effluent and groundwater violations for the Discharger, adding responsibility for compliance to industrial sources.</p> <p>(c) An additional industry and other unknown sources now discharge to the new Plant. The potential for impact to the groundwater is not known.</p> <p>(d) Despite regular inspections of the existing pretreatment program, the Discharger did not completely conform to the federal requirements.</p>

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	has pretreatment limits, an implementation plan, industrial permits, and enforcement tools.	
1.5	<p>Make these changes to Finding 12 on Page 3:</p> <p>13. The 2007 pretreatment language amended to the NPDES permit on June 7, 2007 defined local limits for industrial discharge to ensure the plant could comply with the limits in Order No. 97-041 for the old Santa Paula wastewater Reclamation Plant. Waste Discharge Requirements (WDR) Order No. R4-2007-0028 adopted by this Regional Water Board on May 3, 2007 for the new Santa Paula Wastewater Recycling Plant specifies that effluent may not exceed limits designated for Priority Pollutants by EPA , California Drinking Water Standard, California Code of Regulations (CCR) title 22, section 64431 and 64444, and radioactivity in CCR title 22, chapter 15, section 64441 et seq. The WDR limits include most of those in the NPDES permit. However, those limits in the old Santa Paula Wastewater Reclamation Plant Pretreatment Program which are not in the WDR for the new Santa Paula Wastewater Recycling Plant, shall now be limited in the industrial influent until such time as new pretreatment requirements are approved.</p>	<p>Change accepted because the existing pretreatment program will be implemented by this WDR and there will be no change in the requirements.</p>
1.6	<p>Make these changes to Finding 15 on Page 4:</p> <p>15. <i>If the City determines it is necessary, the</i> The existing Pretreatment Program for the old Santa Paula Wastewater Reclamation Plant shall be updated to set local limits based on the New Santa Paula Wastewater Recycling plant</p>	<p>Change accepted for clarity. The City or the Regional Board may determine the necessity for a pretreatment program.</p>

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	<p>based upon surface receiving water quality. A current and to update the list of industrial sources to the sewer system shall be maintained. Any modified program shall be approved by the Regional Board. If necessary, the Santa Paula Municipal Code will be amended to provide the Discharger the additional legal authority to implement and enforce the revised Pretreatment Program.</p>	

Comment 2: City of Santa Paula's January 13, 2012 letter		
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2.1 Page 1 Para- graph 1	We have previously commented on earlier drafts of the document that were transmitted to the City. Our concerns, however, about the imposition of the pretreatment requirements on the City still remain.	<p>Comment noted.</p> <p>The City submitted a redline revision of the tentative WDR and staff addressed each specific comment as discussed above. We note your continuing concern; however we assert that it is necessary to add these requirements.</p>
2.2 Page 1 Para- graph 2	We are not a large discharger having a current flow of approximately 2 million gallons per day (mgd). This is significantly less than the 5 mgd identified as the lower limit in both the Federal Regulations and California Water Code as requiring a pretreatment program.	<p>Comment noted.</p> <p>There are many occasions where the daily flow exceeds 4 mgd (examples: 4/8/2011 and 4/18/2011). The Regional Board has the authority to impose this requirement on discharging volumes of less than 5 mgd when industrial</p>

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		dischargers are present.
2.3 Page 1 Para- graph 2	We do recognize the Regional Board has the ability to impose this requirement on dischargers smaller than that level. However, historic monitoring of the City's effluent since 2006 indicates levels of non-detect for most constituents.	Comment noted. Regional Board staff notes problems in complying with effluent and groundwater limits. The pretreatment program should assist the City in meeting those requirements by adding responsibility for treatment to industrial sources.
2.3 Page 1 Para- graph 3	Iron was noted as a problem in monitoring a few years ago but has more recently returned to acceptable levels. Attempts to definitively identify the source were not completely successful, but infiltration of groundwater was suspected as the source.	Comment noted. Regional Board staff recognizes City of Santa Paula's efforts in self-monitoring for constituents outside of permit requirements. However, the City's comment that iron levels were high because of groundwater infiltration emphasizes the need for industrial treatment before disposal to the collection system. The most recent Notice of Violation reported groundwater exceedances in sulfate, chloride, selenium, cadmium, chromium, and aluminum, among others.
2.4 Page 1 Para- graph 3	The constituents without significant historical data in the wastewater discharge include Aluminum and Fluoride. Samples for analysis of these constituents are now being collected at the City Wastewater Reclamation Facility as part of the monitoring effort for the discharge under requirements contained in Board Order No. R4-2007-0028. Both of these constituents are well below the MCL established for each constituent.	Comment noted. Self-Monitoring Report of 1 quarter (Q), 2011 indicates groundwater exceedance of Aluminum as high as 242 mg/L (MCL and permit limit is 1 mg/L). Self Monitoring Report of 2Q, 2010 indicates groundwater exceedance of Fluoride as high as 3.8 mg/L (MCL and permit limit is 2 mg/L). The Regional Board appreciates the monitoring

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		the City completes to identify the source of these problems.
2.5 Page 2 Para- graph 1	The major water quality concern in the City discharge is related to Chloride levels. The City has recognized the problem and has adopted ordinances to limit the primary source: the use of self-regenerating water softeners. The City now prohibits the installation of new water softening systems. Additionally, and perhaps more importantly, the City is participating with other local entities to identify a long term solution for that constituent.	Comment noted. Regional Board recognizes City of Santa Paula's attempts to remediate the elevated Chloride concentrations. Regional Board welcomes continuing investment in a regional chloride solution. Chloride can also be reduced through pretreatment of industrial sources.
2.6 Page 2 Para- graph 2	The last issue is related to the direction of groundwater flow in the Santa Paula Basin. Finding number 2 in the proposed order indicates: "The water table is known to intersect the channel of the Santa Clara River and the surface water quality may be affected by the groundwater quality beneath the site." We previously provided the information generated by Fugro West related to the groundwater flow in conjunction with the disposal ponds serving the City. As identified in Fugro's reports, the directional flow is away from the river or parallel to the river channel. We ask that board staff not disregard this information. Additional information indicating the flow direction in the groundwater of the Santa Paula Basin is contained in the reports generated by the United Water Conservation District. In their reports of water conditions in the basin they continue to indicate the basin is in overdraft and the surface water flows are	Comment noted, see changes to Finding number 2.

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	<p>recharging the groundwater basin. Attached is Figure 10 from their annual report for 2008 which shows the groundwater flow as being parallel to the river channel. This was prior to the discharge from the new facility serving the City. That information and the reports submitted by Fugro both indicate the flow direction of the groundwater as not being toward the surface water of the Santa Clara River.</p>	