

California Regional Water Quality Control Board
Santa Ana Region

Order No. R8-2009-0057
Amending Order No. R8-2007-0039,
Water Recycling Requirements
for

Inland Empire Utilities Agency and Chino Basin Watermaster
Chino Basin Recycled Water Groundwater Recharge Program
Phase I and Phase II Projects
San Bernardino County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter, Regional Board), finds that:

1. On June 29, 2007, the Regional Board adopted Order No. R8-2007-0039 prescribing Water Recycling Requirements for the Inland Empire Utilities Agency (IEUA) and Chino Basin Watermaster (CBWM) Chino Basin Recycled Water Groundwater Recharge Program, Phase I and Phase II Projects. The Order authorizes the use of recycled water generated from IEUA's Regional Water Recycling Plants No. 1 and 4, for groundwater recharge via spreading in seven Phase I and six Phase II recharge basin sites located within the Chino North Groundwater Management Zone.
2. Order No. R8-2007-0039 allows IEUA and CBWM to apply a 60-month averaging period to comply with the approved maximum average recycled water contribution (RWC) and total organic carbon (TOC) limits for each recharge basin. The maximum average RWC and TOC limits are determined through the Start-Up Period and approved by the California Department of Public Health (CDPH) and the Regional Board. Also, the maximum average RWC and TOC limits for each basin can be increased upon approval by CDPH and the Regional Board after the first year following the Start-Up Period.
3. IEUA submitted a letter dated March 23, 2009 and a supplemental report dated July 2, 2009, to CDPH requesting a change in the RWC averaging period for the Chino Basin Recycled Water Groundwater Recharge Program. IEUA requested that the 60-month averaging period be changed to a 120-month averaging period to address the water supply shortage of imported water from State Water Project needed as diluent water in the groundwater recharge basins, while providing an equivalent level of public health protection.
4. In June 2009, IEUA and CBWM completed an evaluation of the total dissolved solids and nitrate projections for Chino North Management Zone showing that a change from a 60-month to a 120-month RWC averaging period will have a negligible impact on the Chino North Groundwater Management Zone's maximum benefit based total dissolved solids and total inorganic nitrogen water quality objectives.

5. In a letter dated August 24, 2009, CDPH determined that based on the information submitted by IEUA a 120-month averaging period provides an equivalent level of public health protection as the 60-month averaging period. Therefore, CDPH recommended to the Regional Board the approval of IEUA's request to operate its recycled water groundwater recharge program utilizing an extended RWC compliance period beyond the current 60-month period but not to exceed 120 months.
6. On August 31, 2009, IEUA and CBWM requested that Order No. R8-2007-0039 be amended in accordance with the recommendations forwarder to the Regional Board by CDPH in their letter dated August 24, 2009.
7. It is appropriate to amend Order No. R8-2007-0039 to incorporate the recommendations forwarder to the Regional Board by CDPH in their letter dated August 24, 2009.
8. In compliance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), IEUA and CBWM prepared and certified an Environmental Impact Report for Phase I and Phase II Recharge Projects. The Optimum Basin Management Program Environmental Impact Report was approved on June 29, 2000. It identified no significant adverse impact to water quality as a result of the use of recycled water.
9. The Board has notified IEUA, CBWM, and other interested agencies and persons of its intent to amend water recycling requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.
10. The Board, in a public meeting, heard and considered all comments pertaining to the use of recycled water.

IT IS HEREBY ORDERED that Order No. R8-2007-0039 be amended as follows:

1. Recycled Water Quality Specification A.11. shall be replaced with the following:
 11. For each recharge basin, during the initial year of recharge operation after the Start-Up Period (See Provisions H.9), the maximum average RWC¹⁰ and the TOC limit shall not exceed the maximum average RWC and TOC limits identified in the approved Start-Up Period report. After the first year following the Start-Up Period, the average RWC may be increased at each recharge basin. If the users propose to increase the maximum average RWC, prior approval shall be obtained from CDPH in accordance with CDPH Condition 4 of the Phase I and Phase II Reports (See Attachment A) and from the Executive Officer of the Regional Board. (See also Compliance Determination B.7.). If the approved maximum average RWC is exceeded, the Discharger shall implement measures such that the


maximum average RWC is reduced over a period of 120 months. IEUA shall maintain the RWC volume-based percentage as established and approved by CDPH in each of the basins start up plans. Also, IEUA shall maintain an ongoing assessment of the individual basin's soil aquifer treatment (SAT) efficiency and report any changes to an individual basin's SAT efficacy and the resulting RWC.

2. Compliance Determination B.7. shall be replaced with the following:
 7. Calculation of the running monthly average RWC shall commence after 30 months of operation and shall be based on the total volume of the recycled water and diluent water recharged over the preceding months. For each recharge basin, compliance with the current approved maximum average RWC shall be achieved no later than upon the completion of 120 months of operation after the start-up period. The average RWC shall be calculated by dividing the total volume of recycled water applied to the spreading area during the preceding 120 calendar months by the sum of the total recycled water applied to the spreading area and the diluent water applied during that 120-month period.
3. Conditions for Suspending Groundwater Recharge, E.5. shall be added as follows:
 5. IEUA shall suspend recycled water deliveries to a basin approved for recharge upon reaching the RWC limit on or after month 96 of the 120 month period. Prior to resuming recycled water deliveries, IEUA shall prepare and submit for review and approval a plan to achieve compliance with the RWC limit.
4. Required Notices and Reports F.20. shall be replaced with the following:
 20. The Discharger shall submit a RWC Management Plan to the CDPH and the Regional Board that includes estimates of future average RWCs based on anticipated recharge operations over the first 120 months of recycled water recharge at each recharge site. The RWC Management Plan shall be submitted with the Start-Up Period Report and updated with IEUA's annual report to the Regional Board during the first 120-months and shall clearly identify the plan to achieve compliance with the maximum recycled water contribution by the 120th month at each recharge site. IEUA shall update the basin-specific RWC plans annually to reflect the estimated diluent water and recycled water contributions for the upcoming year. For the purpose of the diluent water projections, implementation of a weighted averaging should be considered when it is known that imported water supplies will not be available for purposes of recharging the aquifer. The underflow of the Chino Basin aquifer may be used as a source of diluent water. CDPH may consider crediting a fraction of the flow as

diluent water, which would be dependent on the accuracy of the method used to measure the flow, its distribution, and the ability to meet the other diluent water criteria in the draft regulation.

5. Required Notices and Reports F.22 shall be added as follows:
 22. By March 1, 2011, the Discharger shall submit a written report based on the findings of a scientific peer review panel. The peer review panel will consist of at least one panel member experienced in the engineering, design, and operation of SAT systems and one research-oriented expert in the SAT field.
6. These amendments shall become effective upon the adoption of this Order.
7. All other conditions and requirements of Order No. R8-2007-0039 shall remain unchanged.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the forgoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on October 23, 2009.



Gerard J. Thibeault
Executive Officer