

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

**BOARD ORDER NO. R6V-2011-0046
WDID No. 6B190107069**

**RESCISSION OF CEASE AND DESIST ORDER NO. R6V-2004-0039
AND AMENDED CEASE AND DESIST ORDER NO. R6V-2004-0039-A01**

for

**LOS ANGELES COUNTY SANITATION DISTRICT NO. 20
PALMDALE WATER RECLAMATION PLANT**

Los Angeles County

The California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. Discharger and Facility

The Los Angeles County Sanitation Districts, District 20 (hereafter referred to as the Discharger) treats domestic wastewater from the City of Palmdale. The Discharger owns and operates a wastewater treatment plant and wastewater storage impoundments. The Discharger operates an agricultural site (formerly referred to as the Effluent Management Site) for use of recycled water from the treatment plant through a lease agreement with the City of Los Angeles World Airports (LAWA).

2. Water Board Orders

Treated wastewater discharge and re-use is regulated under Water Recycling Requirements / Waste Discharge Requirements (WDRs) Order No. R6V-2011-0012 and formerly under Order No. 6-00-57 and its amendments. There is groundwater cleanup required through Cleanup and Abatement Order (CAO) Order No. R6V-2003-0056. Cease and Desist Order (CDO) No. R6V-2004-0039 and CDO No. R6V-2004-0039-A01 were issued for waste discharge violations as described further below.

3. Cease and Desist Orders

The Water Board adopted CDO No. R6V-2004-0039 on October 13, 2004 and Amended CDO No. R6V-2004-0039-A01 on November 29, 2007. These CDOs were issued to the Discharger to address violations of Discharge Specifications I.C.3 and I.C.5 of WDR Board Order No. 6-00-57. The CDO, as amended, requires the Discharger to cease discharges of nitrogen to the groundwater in violation of its WDRs by June 18, 2010.

Final Compliance with WDRs is described in Requirement III of CDO No. R6V-2004-0039-A01, which states:

"The Discharger shall achieve final compliance with Order No. 6-00-57, as amended, (no discharges of nitrogen to ground water that creates a condition of pollution or that is in violation of Basin Plan water quality objectives including the non-degradation objective unless such degradation is authorized by the Water Board pursuant to State Water Resources Control Board Resolution 68-16), by June 18, 2010.

The Discharger may demonstrate compliance with this requirement by: a) irrigating crops at the effluent management site during the 2010 summer season at rates that do not exceed either the water or nutrient agronomic rates; and b) completing the storage impoundments, force main and pump stations as described in Findings No. 3 and 4 of this Order and operating these facilities in a manner that eliminates the need for the Discharger to irrigate crops in the effluent management area in excess of the water or nutrient agronomic needs of the crops.

In the alternative, the Discharger may achieve compliance by another equally effective means. If the alternative involves initiating a new discharge of waste or significant change to an existing permitted discharge, the Discharger must submit a complete Report of Waste Discharge at least 140 days in advance of initiating the new discharge or change in an existing discharge."

4. Reason for Action

The Discharger has constructed facilities needed to store and manage its wastewater and has demonstrated through data submitted in its CDO Quarterly Status Reports that its application of recycled water to land does not exceed the water and nutrient agronomic rates. The Discharger has fulfilled the requirement of CDO Nos. R6V-2004-0039 and R6V-2004-0039-A01 for demonstrating final compliance with WDR Order No. 6-00-57 and it is therefore appropriate to rescind CDO Nos. R6V-2004-0039 and R6V-2004-0039-A01.

5. Compliance Evaluation

The Discharger implemented measures and has provided information demonstrating compliance with the CDO requirement as follows:

- a. Since adoption of the CDO the Discharger has submitted annual cropping plans in November of each year, as required by Monitoring and Reporting Program Order No. 00-57-A01 as amended. The cropping plans identify methods for determining agronomic irrigation and nitrogen application rates. Water Board staff have reviewed these cropping plans and concur that the data collection and the irrigation and nitrogen calculation methods are appropriate. The Discharger's Quarterly Status Reports indicate that the Discharger has been applying water and nitrogen as described in its annual cropping plans, as required in Order II.B of CDO No. R6V-2004-0039-A01.

- b. The Discharger's Quarterly Status Reports submitted for 2010 indicate that the Discharger has complied with the final compliance requirement, CDO No. R6V-2004-0039-A01 Requirement III, to apply water and nitrogen at or below agronomic rates. This has been achieved by expanding the area it irrigates with recycled water from 1280 acres in 2004 to 2050 acres in 2006, completion of storage reservoirs in December 2009 that allow recycled water storage during the winter when crop water and nutrient needs decrease, and monitoring of crop evapotranspiration such that irrigation application can match crop needs. The Discharger's Quarterly Status Reports include data based on the methods described in the Annual Cropping Plans and show that all fields were being irrigated at agronomic rates since March 1, 2010.
- c. The CDOs set interim annual mass limits for the discharge of nitrogen that is allowed to percolate below the crop root zone. These limits were established to require the Discharger to make interim improvements while it was taking significant actions to achieve full compliance with its WDRs. Since 2005, the Discharger's Quarterly Status Reports indicate it has been in compliance with the interim limits of the CDOs, as shown in Table 1, below. Overall decreases in excess nitrogen from 2004 to 2010 are the result of increasing available cropland application areas and elimination of flood application in Section 9.

Table 1: Allowable Nitrogen Discharges in Excess of Agronomic Rates

Year	2004	2005	2006	2007	2008	2009	2010
Allowable Excess Nitrogen, tons	188	99	80	125.4 ^a	129.2 ^a	135.7 ^a	148.1 ^a
Reported Excess Nitrogen, tons	215	97	27	91	100	84	53
Compliance with Limit?	no	yes	yes	yes	yes	yes	yes

^aThe limit in the amended CDO allowed an adjustment based on actual effluent quality and annual rainfall. The value reflects the limit after the adjustment.

- d. The Discharger's Quarterly Status Reports indicate that in 2009 and 2010, the Discharger harvested more nitrogen in crops (300.3 and 358.4 tons, respectively) than was applied in irrigation (298.4 and 305.2 tons, respectively). The Discharger reports that the extra nitrogen came from either root zone storage or alfalfa nitrogen fixation or both¹.

¹Nitrogen may remain in the root zone of the crop from the previous year's applications and may be used by the crop in the current year. Alfalfa extracts ("fixes") nitrogen from the atmosphere when there is insufficient nitrogen in the root zone. Alfalfa is a very efficient user of soil-water nitrogen, and, when supplied sufficient nitrogen in irrigation water, alfalfa will not fix nitrogen from the atmosphere.

- e. Uniform wastewater generation coupled with seasonal variation in the water and nutrient needs of crops resulted in over-application of water and nutrients in winter months. In December 2009, the Discharger completed construction of storage impoundments to contain effluent produced in the winter that exceeds the crop needs. This storage capability results in less water applied to land in the winter and more water applied to land in the spring and summer. Changes in the volume of water applied to the agricultural site from 2009 to 2010, as reported in the Quarterly Status Reports are shown in Table 2, below.

Table 2: Irrigation Application (millions of gallons)

Year	Jan	Feb	Mar	Apr	May	June
2009	228.6	262.7	231.9	245.9	249	224.4
2010	110	121.4	215.1	297.4	303.9	276.2
Year	Jul	Aug	Sept	Oct	Nov	Dec
2009	244.9	252.3	245.8	254.1	233.4	206.5
2010	217.5	231.4	245	219.4	116.2	117.1

6. Final and On-going Compliance

Analysis of data submitted by the Discharger demonstrates that the final requirements for compliance with the CDO are met as described above. Ongoing monitoring and requirements to apply water and nutrients at agronomic rates are imposed through the facility's current WDR Order No. R6V-2011-0012 and MRP No. R6V-2011-0012. Requirement No. I.B.3 of WDR Order R6V-2011-0012 requires the District to maintain agronomic application rates. In MRP R6V-2011-0012 Requirements A.7, I.H.1, and I.H.2.a through c require the Discharger to report application amounts, provide an annual cropping plan, and perform agricultural monitoring, respectively. CDO Nos. R6V-2004-0039 and R6V-2004-0039-A01 have achieved their purpose to return the Discharger to compliance with its WDRs.

7. California Environmental Quality Act

This action is being taken by this regulatory agency to rescind Board Orders Nos. R6V-2004-0039 and R6V-2004-0039-A01, pursuant to the California Water Code and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), in accordance with title 14, California Code of Regulations, section 15321(a)(2).

8. Public Notification

The Water Board has notified the Discharger and interested parties of its intent to rescind CDO Nos. R6V-2004-0039 and R6V-2004-0039-A01. The Water Board in a public meeting heard and considered all comments pertaining to this Board Order.

IT IS HEREBY ORDERED THAT:

Cease and Desist Order Nos. R6V-2004-0039 and R6V-2004-0039-A01 are hereby rescinded.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on June 9, 2011.



HAROLD J. SINGER
EXECUTIVE OFFICER