Exhibit B

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

CEASE AND DESIST ORDER NO. R6V-2004-0039
WDID NO. 6B190107069
For
LOS ANGELES COUNTY SANITATION DISTRICT NO. 20
VIOLATIONS OF WASTE DISCHARGE REQUIREMENTS -
BOARD ORDER NO. 6-00-57 FOR PALMDALE WATER RECLAMATION PLANT

Los Angeles County

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

1. Waste Discharge Requirements and Discharger

On June 14, 2000, the Regional Board revised Waste Discharge Requirements (WDRs) for the Palmdale Water Reclamation Plant under Board Order No. 6-00-57. On April 14, 2004, and July 26, 2004, the Regional Board amended the WDRs by adopting Board Orders 6-00-57A01 and 6-00-57A02, respectively. The County Sanitation Districts of Los Angles County owns and operates the Los Angeles County Sanitation District No. 20 (District) Palmdale Water Reclamation Plant, located in the northeastern portion of the City of Palmdale. The City of Los Angeles World Airports (City) is the owner of the land on which the effluent is disposed (disposal site). The District is solely responsible for developing and implementing effluent disposal methods that comply with water quality objectives and prohibitions contained in the Water Quality Control Plan for the Lahontan Region (Basin Plan). Currently, the District has chosen to contract with and use land owned by the City for effluent disposal. However, this course of action is within the District's discretion. Therefore, for the purposes of this Cease and Desist (Order), the District is referred to as the "Discharger" and is the only party responsible for compliance with this Order. The City, the landowner, is not named in this Order because all actions necessary for compliance are the responsibility of the District.

2. Waste Discharge Requirements

Board Order No. 6-00-57 includes the following specifications and provisions:

"I. Discharge Specifications

...

C. Receiving Water Limitation...

The discharge shall not cause the presence of the following substances or conditions in ground or surface waters of the Antelope Hydrologic Unit:

...

3. *Chemical Constituents - Ground waters designated as MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of Title 22 of the California Code of Regulations: Table 64431-A of Section 64431 (Inorganic Chemicals), Table 64431-B*

of Section 64431 (Fluoride), Table 6444-A of Section 64444 (Organic Chemicals), Table 64449-A of Section 64449 (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits), and Table 64449-B of Section 64449 (Secondary Maximum Contaminant Levels-Ranges). This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

...

5. Chemicals - Waters shall not contain concentrations of chemical constituents that adversely affect the water for beneficial uses."

3. Nitrate Standards in Ground Water

The Basin Plan adopted by the Regional Board, effective on March 31, 1995, establishes water quality objectives for the protection of beneficial uses. The Basin Plan prohibits discharges that cause concentrations of chemical constituents in groundwater to exceed the primary maximum contaminant level (MCL) specified in provisions of Title 22, Cal. Code of Regulations (CCR). The MCL for nitrate is10 mg/L as N. The drinking water standard for nitrate specified in Table 64431-A of Section 64431 (Inorganic Chemicals) Title 22, CCR, is 10 mg/L.

4. Violations of Discharge Specifications, General Requirements and Prohibitions

Ground water monitoring data obtained in the mid to late 1990's, show nitrate (as N) concentrations that periodically exceed the primary MCL of 10 (mg/L) in wells located north and downgradient of the land application areas. Data collected in 2003 and 2004 from three monitoring wells downgradient of the effluent disposal areas indicate that nitrate concentrations vary but periodically exceed the drinking water standard as shown in Table 1, below.

Table 1 - Ground Water Nitrate Data

Location	Maximum Nitrate as N Concentration (mg/L)		Concentration Range (mg/L)	
	2003	2004	2003	2004
MW4	11.2	10.7	9.85 – 11.2	7.57 – 10.7
MW18	15.8	8.87	9.80 – 15.8	6.08 – 8.87
MW20	13.6	13.5	10.0 – 13.6	11.6 – 13.5

Ground water modeling done by the Discharger in 2003 predicted that nitrate concentrations in the aquifer beneath the disposal site could continue to increase to approximately 24 mg/L as N by 2025, unless the Discharger implements abatement actions to reduce the amount of applied nitrogen resulting from land spreading of effluent. As a result, the Regional Board adopted Cleanup and Abatement Order (CAO) No. R6V-2003-056 requiring the Discharger and the City to delineate, contain and remediate polluted groundwater. Nitrate concentrations in the groundwater beneath the disposal site exceed or threaten to exceed the water quality objective in the Basin Plan. Historical background levels of nitrate as N in groundwater upgradient of the disposal site are generally less than 1.0 mg/L in the aquifer and currently are generally less than 2 mg/L. The 10 mg/L total nitrogen limit in the receiving water has been violated, in part, due to the land application of effluent on Section 9 and the southwest corner of Section 10 where irrigation of crops above agronomic rates occurs. The Discharger's actions and actions by other

parties named in the WDRs have violated the Receiving Water Limitations of the WDRs specified in Finding No. 2 of this Order as follows.

a. Discharge Specification I.C.3., Chemical Constituents in Receiving Water, has been violated by the discharges of waste causing the presence of nitrate in groundwater at concentrations above the maximum contaminant level (MCL) for the MUN beneficial use.

b. Discharge Specification I.C.5., Chemicals in Receiving Water, has been violated by the discharge of waste causing concentrations of chemical constituents (nitrate at concentrations that exceed the MCL for the MUN Beneficial Use) in the groundwater, and that adversely affect the water for the designated beneficial uses.

c. The discharge of wastewater from the Palmdale Water Reclamation Plant has created a condition of pollution, as defined in Water Code Section 13050.

5. Cleanup and Abatement Order

The CAO contains time schedules for numerous tasks associated with cleanup and abatement of the nitrates in the groundwater. This Order replaces portions of the CAO that deal with abatement of the continuing discharge of nitrates to groundwater. Those portions of the CAO that address groundwater containment and remediation issues remain in effect.

6. Discharger's Proposed Immediate Corrective Measures

In response to a requirement in the CAO, the Discharger submitted a March 30, 2004, "Abatement Report" and an August 2, 2004 "Addendum" indicating that it will continue some land-spreading of effluent or irrigation at a rate that exceeds agronomic crop requirements through the year 2009. The discharger plans to reduce the effect of its discharge on groundwater quality by implementing immediate corrective measures. According to the plan contained in the Abatement Report, these measures will culminate in completion of new treatment facilities by October 15, 2009.

In 2003 the Discharger applied approximately 265 tons of nitrogen to the land disposal areas in Sections 9 and 10 of which approximately 192 tons of nitrogen was not removed by the crops or lost to the atmosphere and is available to migrate to groundwater. The Discharger estimates that flows to the treatment plant will increase by about 0.33 million gallons per day (MGD) each year through 2010. Attachment A to this Order illustrates the effect of the immediate corrective measures on the amount of nitrogen available to groundwater from on-going discharges to Sections 9 and 10 (areas where the District plans to continue to land spread effluent and irrigate crops above agronomic rates). These estimates include the effect of yearly increases in flows to the treatment plant. The following paragraphs describe the immediate corrective measures contained in the District's plan:

a. By October 15, 2004, the Discharger proposes to install and begin operation of two interim improvements: 1) addition of ferric chloride/polymer to the primary clarifiers which will increase primary solids removal and 2) treatment of the digester supernatant waste stream to obtain additional nitrogen reduction. Currently, the total nitrogen concentration in the effluent is approximately 33 mg/L averaged over a one-year period.

These improvements will result in an estimated 15 percent reduction (5 mg/L) in total effluent nitrogen concentrations thereafter (annual average total nitrogen of 28 mg/L)[1].

b. In April 2004, the Regional Board authorized recycled water use to five center-pivot systems in Section 15 as long as crops are irrigated at agronomic rates. The Discharger proposes to begin planting and applying recycled water to Section 15 in the fall of 2004. In addition, the District proposes to plant a winter crop on Section 9. The estimated nitrogen available for percolation to groundwater disposed by land spreading or over-irrigation of crops in 2004 will be 188 tons.

c. In 2005 the Discharger proposes to begin using portions of Section 14 and 16 for agricultural operations. The District is currently preparing a California Environmental Quality Act document analyzing the effects of this proposal and is expected to apply to the Regional Board for WDRs in 2005. As a result of this measure and the continued operation of other disposal operations at agronomic rates the estimated nitrogen available for percolation to groundwater disposed by land spreading in 2005 will be 99 tons.

d. In 2006 the Discharger plans to irrigate crops in Sections 14 and 16 will be irrigated for the entire year. The cumulative effect of this measure along with the continued implementation of other immediate corrective measures will result in an estimated 80 tons of excess nitrogen disposed by land spreading or over-irrigation of crops in 2006.

e. In 2007, the District may plant a summer sudan grass crop in Section 9 if sufficient water is available to support a crop. The District estimates that 80 tons of nitrogen will be available for percolation to groundwater in 2007 based on the continued implementation of the previously described immediate corrective measures. However, if the sudan grass crop is successful, less nitrogen will be disposed by land spreading.

f. In 2008, Section 9 may again be planted to produce two summer and one winter crops. The estimated nitrogen available for percolation to groundwater disposed by land spreading in 2008 will be 78 tons.

g. In 2009, Section 9 may again yield two summer and one winter crops. The estimated nitrogen available for percolation to groundwater disposed by land spreading in 2009 will be 34 tons.

h. By October 15, 2009, the Discharger anticipates completing construction of a 21 MGD treatment plant, which will increase capacity from the existing 15 MGD plant. The specific treatment processes that will be employed have yet to be determined pending completion of the 2025 Facilities Planning Process. The Abatement Report indicates that after this date facilities will be available for managing the entire waste discharge either by storage reservoirs or other means which will obviate the need for further land application of wastewater or irrigation above agronomic rates.

[1] Personal communication on June 24, 2004 between Regional Board staff and Dave Snyder, District.

7. Additional Immediate Corrective Measures

The District did not incorporate storage reservoirs as part of its proposed immediate corrective measures. Reservoirs would provide the District with capability of storing effluent in the winter when crop needs are low. It could then take advantage of summer evaporation and use this effluent to irrigate at agronomic rates when crop needs are high. In the Facilities Plan for it's Lancaster Treatment Plant, the District proposed to complete reservoirs within two and one-half years from approval of the Facilities Plan. The District intends to approve a Facilities Plan for the Palmdale Treatment Plant in fall 2005. Therefore, it should be capable of constructing storage reservoirs by fall 2008, one year earlier than completion of the other facilities. However, if storage reservoirs are not part of the District's approved Facilities Plan, the Regional Board may revisit the need for the District to implement this or an equivalent immediate corrective measure.

8. California Water Code and California Code of Regulations

California Water Code Section 13301 states, in part, "*When a regional board finds that a discharge of waste is taking place or threatening to take place in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action.*"

The California Code of Regulations, Title 23, Division 3, Chapter 9.1states, in part:

"*Section 2245. Immediate Corrective Measures.*

(a) Each discharger should be expected to construct emergency facilities or modify existing plant operation to achieve rapid compliance.

(b) Emergency facilities which should be constructed immediately include chemical treatment, additional disinfection, ponding with or without aeration, receiving water mixing, aeration, and any other steps which can be immediately implemented.

(c) Extra cost of such facilities is not a reasonable excuse for failure to construct them.

(d) If necessary emergency facilities are not immediately provided, the board should consider further action against the discharger."

9. California Environmental Quality Act

This enforcement action is being taken by this regulatory agency to enforce provisions of the California Water Code and, as such, it is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) in accordance with Section 15308, Chapter 3, Division 6, Title 14, California Code of Regulations.

10. Notification of Interested Parties

The Regional Board has notified the Discharger and interested parties of a public hearing to be held at the Regional Board meeting on July 26, 2004. At that meeting the hearing was continued to the October 13-14, 2004 Regional Board meeting. During the public hearing conducted during both of these meetings, the Regional Board heard and considered all comments related to the proposed Order.

11. Petition

Any person adversely affected by this action of the Regional Board may petition the State Water Resources Control Board (SWRCB) for review of this action. The petition must be received by the SWRCB, Office of Chief Counsel, POB 100, Sacramento, CA 95812-0100, within 30 days of the date on which this action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

12. Reporting Requirements

The District is required to provide reports pursuant to this Order because it is discharging waste. The reporting requirements of this Order are needed to allow the Regional Board to track the actions being taken by the Discharger in its efforts to achieve compliance with this Order, and to assess the water quality impacts of those actions.

IT IS HEREBY ORDERED that in accordance with Section 13301 of the California Water Code, the Discharger shall cease and desist from violating and threatening to violate Discharge Specifications described in Finding No. 2 of this Order and shall achieve compliance with WDRs according to the following time schedules and shall comply with interim effluent limits. Additionally, the Discharger shall, in accordance with Section 13267 of the California Water Code, submit technical reports as required.

I. IMMEDIATE CORRECTIVE MEASURES

The immediate corrective measures described below are intended to reduce and eventually eliminate wastewater currently disposed of by land spreading in the south half of Section 9 and over-irrigation in Section 10 (center pivots 6, 7 and 8). As described in Finding 6, the Discharger plans to shift a significant portion of effluent disposal to agricultural re-use operations irrigating at agronomic rates. When all proposed agricultural re-use areas are planted, land spreading and over-irrigation of crops will occur only during the winter season when crop demand for water is low. This Order requires the Discharger to implement immediate corrective measures resulting in less effluent disposed by land spreading or over-irrigation of crops until either new storage ponds are constructed or the Discharger provides for alternate disposal methods to achieve compliance with the WDRs. The Regional Board intends to measure compliance with interim actions described in Sections B through F below by comparing the amount of total nitrogen that is land spread or used for irrigation on the south half of Section 9 and on Section 10 (center pivots 6, 7 and 8) minus the amount of nitrogen taken up by the crop or lost to the atmosphere to the nitrogen discharge standard listed in Sections B through F below.

A. Beginning **November 1, 2004**, and thereafter until final compliance with the WDRs is achieved, the discharge of total nitrogen in the effluent to the disposal site above an annual average total nitrogen concentration of 28 mg/L is prohibited. Compliance shall be determined monthly and be based upon the running average of all effluent samples analyzed for total nitrogen collected during the prior 12-month period. The first compliance evaluation will be for the period November 1, 2004 through October 31, 2005. Total nitrogen as nitrogen is the sum of nitrate + ammonia + organic nitrogen + nitrite.

B. The Discharger must take actions to limit the amount of nitrogen that it discharges to less than or equal to 188 tons during calendar year 2004.

1. The Discharger may demonstrate compliance with this standard by: a) initiating planting a winter crop on the south half of Section 9 in the fall of 2004; b) planting of crops on approximately 520 acres in Section 15 in the fall of 2004 and initiating wastewater application in compliance with WDRs; c) continuing agricultural re-use operations in existing authorized areas of Sections 10 (except center pivots 6, 7 and 8) and 11 in compliance with WDRs; and, d) determining the amount of nitrogen applied to Section 9 and 10 (center pivots 6, 7 and 8) and the amount of nitrogen removed by the crop or lost to the atmosphere during 2004.

2. The Discharger may also achieve compliance by implementing another immediate corrective measure that results in the discharge of no more than 188 tons of nitrogen to the ground where it may migrate to groundwater.

C. The Discharger must take actions to limit the amount of nitrogen that it discharges to less than or equal to 99 tons during calendar year 2005.

1. The Discharger may demonstrate compliance with this standard by: a) continuing the agricultural re-use practices described in I.B.1, above, b) submitting a report of waste discharge to the Regional Board by May 1, 2005 and, upon the issuance of WDRs, begin applying wastewater at for agricultural re-use in Sections 14 and 16 in compliance with WDRs; and, c) determining the amount of nitrogen applied to Section 9 and 10 (center pivots 6, 7 and 8) and the amount of nitrogen removed by the crop or lost to the atmosphere during 2005.

2. The Discharger may also achieve compliance by implementing another immediate corrective measure that results in the discharge of no more than 99 tons of nitrogen to the ground where it may migrate to groundwater. If the Discharger proposes to implement another measure it must, by December 15, 2004, submit: a) the details of the measure; b) an implementation schedule for the significant components of the measure; c) a demonstration of how the measure will achieve compliance with the standard; and, d) a report of waste discharge if the measure includes a new discharge or material change to an existing regulated discharge.

D. The Discharger must take actions to limit the amount of nitrogen that it discharges to less than or equal to 80 tons during calendar year 2006.

1. The Discharger may demonstrate compliance with this standard by: a) continuing the agricultural re-use practices described in I.C, above and b) rotating fields in Sections 14 and 16 from winter crops to alfalfa. c) determining the amount of nitrogen applied to Section 9 and 10 (center pivots 6, 7 and 8) and the amount of nitrogen removed by the crop or lost to the atmosphere during 2006.

2. The Discharger may also achieve compliance by implementing another immediate corrective measure that results in the discharge of no more than 80 tons of nitrogen to the ground where it may migrate to groundwater. If the Discharger proposes to implement another measure it must, by October 1, 2005, submit: a) the details of the measure; b) an implementation schedule for the significant components of the measure; c) a demonstration of how the measure will achieve compliance with the standard; and, d) a report of waste discharge if the measure includes a new discharge or material change to an existing regulated discharge.

E. The Discharger must take actions to limit the amount of nitrogen that it discharges to less than or equal to 80 tons during calendar year 2007.

1. The Discharger may demonstrate compliance with this standard by: a) continuing the agricultural re-use practices described in I.D.1., above and; b) determining the amount of nitrogen applied to Section 9 and 10 (center pivots 6, 7 and 8) and the amount of nitrogen removed by the crop or lost to the atmosphere during 2007.

2. The Discharger may also achieve compliance by implementing another immediate corrective measure that results in the discharge of no more than 80 tons of nitrogen to the ground where it may migrate to groundwater. If the Discharger proposes to implement another measure it must, by October 1, 2006, submit: a) the details of the measure; b) an implementation schedule for the significant components of the measure; c) a demonstration of how the measure will achieve compliance with the standard; and, d) a report of waste discharge if the measure includes a new discharge or material change to an existing regulated discharge.

F. The Discharger must take actions to limit the amount of nitrogen that it discharges to less than or equal to 78 tons during calendar year 2008.

1. The Discharger may demonstrate compliance with this standard by: a) continuing the agricultural re-use practices described in I.E.1., above; b) obtaining two summer sudan grass harvests on Section 9; and, c) determining the amount of nitrogen applied to Section 9 and 10 (center pivots 6, 7 and 8) and the amount of nitrogen removed by the crop or lost to the atmosphere during 2008.

2. The Discharger may also achieve compliance by implementing another immediate corrective measure that results in the discharge of no more than 78 tons of nitrogen to the ground where it may migrate to groundwater. If the Discharger proposes to implement another measure it must, by October 1, 2007,

submit: a) the details of the measure; b) an implementation schedule for the significant components of the measure; c) a demonstration of how the measure will achieve compliance with the standard; and, d) a report of waste discharge if the measure includes a new discharge or material change to an existing regulated discharge.

G. By **October 15, 2008**, the Discharger must cease the discharge of nitrogen to groundwater that creates a condition of pollution, in violation of Basin Plan water quality objectives including the non-degradation objective unless such degradation is authorized by the Regional Board pursuant to SWRCB Resolution 68-16.

1. The Discharger may demonstrate compliance with this standard by: a) continuing the agricultural re-use practices described in I.E.1., above; b) discontinuing any land spreading or over-irrigation of wastewater on Section 9 and Section 10; c) constructing storage reservoirs as described in Finding No. 6; and, d) placing into agronomic production sufficient land to dispose of all effluent including that stored in the new reservoirs.

2. The Discharger may also achieve compliance by implementing another immediate corrective measure that results in the elimination of any land application or over-irrigation of wastewater. If the Discharger proposes to implement another measure it must, by October 1, 2006, submit: a) the details of the measure; b) an implementation schedule for the significant components of the measure; c) a demonstration of how the measure will achieve compliance with the standard; and, d) a report of waste discharge if the measure includes a new discharge or material change to an existing regulated discharge.

II. FINAL COMPLIANCE

By **November 15, 2009**, the Discharger must demonstrate that it has the capability to remain in compliance with its WDRs (no discharges of nitrogen to groundwater 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 Regional Board pursuant to SWRCB Resolution 68-16). The Discharger may achieve compliance with this requirement by implementing the project described in the Final 2025 Facilities Plan pursuant to the following schedule:

A. Complete draft Facilities Plan and draft EIR by March 31, 2005
B. Certify EIR and adopt final Facilities Plan by September 30, 2005
C. Submit a complete report of waste discharge for any new storage facilities or any new disposal location(s) by January 31, 2006
D. Complete facilities design by July 31, 2007
E. Begin construction by November 30, 2007
F. Complete construction and initiate operation of new facilities by October 31, 2009.

The Discharger may also achieve compliance by implementing another project that results in consistent compliance with the WDRs. If the Discharger proposes to implement another project it must, by October 1, 2006, submit: a) the details of the measure; b) an implementation schedule for the significant components of the project; c) a demonstration of how the measure will

achieve compliance with the WDRs; and, d) a report of waste discharge if the measure includes a new discharge or material change to an existing regulated discharge.

III. RESCISSION OF PORTIONS OF CAO R6V-2003-056

This Order supersedes the following portions of CAO R6V-2003-056 that require reporting: Sections: 3.1.2, 3.1.3, 3.1.4 and 3.1.5.

All other parts of the CAO not affected by this Order remain in full effect.

IV. REPORTING

A. The Discharger must submit quarterly status reports on January 15, April 15, July 15 and October 15 of each year beginning on January 15, 2005 detailing all measures taken during the reporting quarter to comply with this Order until final compliance is achieved. The reports must include, at a minimum, the following:

1. The status of planning, design, construction and implementation of any measures necessary to achieve compliance with this Order;

2. A description of any other actions that have been implemented and/or proposed to be implemented to achieve compliance; and,

3. Any compliance dates that the Discharger anticipates it will not meet, the reason that the Discharger anticipates it will not meet the dates, and projected new dates of compliance.

4. Reduction of nitrogen in treated effluent by upgrade of the Palmdale Water Reclamation Plant including phased implementation of activated sludge treatment with nitrification/denitrification unit processes, or other nitrogen reduction methods, including the status of actions proposed to achieve this reduction and tasks completed.

5. Diversion of recycled water through expanded agricultural irrigation reuse on fodder crops, including total acres in production.

6. Quarterly and yearly changes in the amount of wastewater that is land applied to Section 9 or is used on Section 9 and 10 to irrigate crops above the agronomic rate for nitrogen.

7. An evaluation of the amount (pounds) of nitrogen being discharged to groundwater (does not include nitrogen that is used by crops based on actual crop production data or that lost to the atmosphere) that is cumulative from November 12, 2003, the effective date of CAO R6V-2003-056.

B. By **April 1, 2005,** the Discharger must submit a report to the Regional Board which evaluates the feasibility of constructing either temporary or permanent storage reservoirs, placing more land into agronomic operation or implementing other actions to eliminate, by October 15, 2007, the discharge of wastewater by either land spreading or

over-irrigation of crops above the agronomic rate. The report must include a discussion of all options evaluated, the reasons any option(s) was (were) rejected and a time schedule for implementing any feasible options, including those that do not achieve full compliance with the WDRs but result in a further reduction in the discharge of wastewater to land spreading or over-irrigation of fodder crops from that achieved in Section I.B. through F. above.

V. TIME EXTENSIONS FOR COMPLIANCE

The compliance dates and reduction amounts required in this order are based, in part, upon an assumption that weather conditions will be average and that no unforeseen obstacles will cause delays for the discharger. If the discharger faces circumstances which are not within its control, and that will either delay compliance dates or affect reduction amounts, it may apply to the Regional Board for more time to bring the facility into compliance. The Regional Board will consider such time extensions based upon the facts contained in the request, and whether and to what extent the delays were out of the discharger's control.

Failure to comply with the terms or conditions of the Order may result in additional enforcement action by the Regional Board. The Executive Officer is authorized to initiate, as needed, referral of this matter to the Attorney General of the State of California for the imposition of Administrative Civil Liability for failure to comply with this Order, injunctive relief, or for any other legal action, as he may deem appropriate.

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 October 13, 2004.

Harold J. Singer

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment: A. Land Spreading Nitrogen Reductions

JC/ rp LACSD20 CDO 10-13-04

Attachment A
Cease and Desist Order No. R6V-2004-0039
LAND SPREADING NITROGEN REDUCTIONS

The District proposes several interim actions that will result in a reduction in the amount of effluent that is land applied in Section 9 and over applied to center pivot no's 6, 7 and 8 in the southwest corner of Section 10. The table below shows the reductions in the total nitrogen mass that is available to groundwater as effluent (and nitrogen mass) due to the implementation of the interim actions.

Year	Flow (MG)	Reduction in Flow from Prior Year (MG)	Applied Nitrogen (Tons)	Reduction in Applied Nitrogen from Prior Year (Tons)	Potential Nitrogen Loading to Ground Water (Tons)	Reduction in Nitrogen Loading From Prior Year (Tons)
2003	1,933		265		193	
2004	1,893	40	254	11	188	4
2005	1,389	504	170	84	99	89
2006	1,199	190	147	23	80	19
2007	1,277	(78)	157	(10)	80	0
2008	1,341	(64)	165	(8)	78	2
2009	969	372	123	42	34	44
2010	0	969	0	123	0	34

In 2003 the agricultural operations were expanded to encompass all of Section 10 and the west ½ of Section 11 (Center Pivots 1-5 and tree farming). Based on the 2003 Annual Report for the Palmdale WRP, the combined land spreading flow to Section 9 and the southwest of Section 10 in 2003 was 1,933 million gallons (MG). The applied nitrogen loading can be determined based on the 2003 annual average total nitrogen in the effluent (33 mg/L) as follows.

8.34 (lb/MG/mg/L) x 1,933 MG/365 days x 33 mg/L = 1,457 lb/day = 265 ton N/yr

The nitrogen that is not consumed by the crops or lost to the atmosphere and therefore available to be transported to groundwater is calculated by determining the difference in the mass of total nitrogen applied minus nitrogen losses. In 2003, these were as follows.

39 tons N removed by harvest of oats/barley in pivots 6,7 & 8
33 tons N lost by ammonia volatilization in Section 9 and pivots 6,7 & 8

72 tons N lost by land spreading activities

Therefore, the nitrogen available to leach to groundwater in 2003 is estimated as follows.

265 ton N applied – 72 ton N removed or lost = 193 ton N in excess

Flow to land application is reduced as the agricultural re-use areas are expanded and other improvements are made as follows. In 2004 the following interim measures are planned.

1. Improvements to the Wastewater Treatment Plant operations will result in a decreased total effluent nitrogen concentration. Total nitrogen as nitrogen is the sum of nitrate + ammonia + organic nitrogen + nitrite. It is estimated that the annual average effluent total nitrogen concentration will be reduced from 33 mg/L to 28 mg/L. This will result in less total applied nitrogen mass to the land spreading sites as well as other re-use areas.
2. The Regional Board authorized use of Section 15 for agricultural re-use. The District plans to plant alfalfa in this area during the fall 2004.
3. The District plans to plant a winter oats/barley crop on Section 9 in the fall 2004.

As a result of these actions, there will be an approximately 84 tons reduction in the amount of nitrogen that is either land spread or over-irrigated in 2005 versus 2004. This, along with the nitrogen removal from crops in Sections 9 and 10 and that lost to the atmosphere will reduce the amount of nitrogen available to leach to groundwater by 89 tons from the prior year. Also in 2005, pending the successful outcome of environmental studies and permit authorization from the Regional Board, the District plans to add agricultural re-use in most of Section 14 and part of Section 16 while continuing winter harvests in section 9. After discounting increases in applied nitrogen from increasing flows, the District estimates a net reduction of 19 tons nitrogen available to groundwater from disposal in Sections 9 and 10 between 2005 and 2006.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

AMENDED MONITORING AND REPORTING PROGRAM NO. 00-57-A03
WDID NO. 6B190107069
FOR
LOS ANGELES COUNTY SANITATION DISTRICT NO. 20 AND THE CITY OF LOS ANGELES WORLD AIRPORTS PALMDALE WATER RECLAMATION PLANT

Los Angeles County

Monitoring and Reporting Program (MRP) 00-57, for the Los Angeles County Sanitation District No. 20 and City of Los Angeles World Airports (Dischargers), Palmdale Water Reclamation Plant (Facility), was revised as MRP 00-57A01, which updated and specified additional monitoring and reporting requirements for the Dischargers, became effective on February 26, 2004.

Board Order No. 6-00-57, which specified Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) for the Dischargers, was subsequently amended in Board Order No. 6-00-57A01, which became effective on April 14, 2004, to authorize an expansion of the Effluent Management Site (EMS) for the Facility, to include Section 15, T6N, R11W, SBB&M, and to remove areas previously included in the authorized EMS, which are no longer applicable. In conjunction, amended MRP 00-57A02 was adopted for Section 15.

Monitoring and Reporting Program No. 00-57-A01 is amended as follows, effective within the first full month after signature (November 2004 period).

Monitoring and Reporting Program, 00-57-A01, Section I – MONITORING, E. Vadose Zone Monitoring – is replaced as follows.

E. Vadose Zone Monitoring

The existing vadose zone monitoring system consists of seven lysimeters as indicated on Attachment "A" of Board Order No. 6-00-57. Many of these lysimeters are dry or located in less than optimal locations. This system is inadequate and will be replaced.

The Discharger submitted a Draft Conceptual Vadose Zone Monitoring Plan on April 1, 2004 and Addendum on July 22, 2004 as a part of the sampling and analysis reporting requirement contained in Section II.A.1. The Plan was revised on August 19, 2004. Upon acceptance of the Discharger's Vadose Zone Monitoring Plan, soil pore-fluid shall be collected from lysimeters identified in the accepted plan.

1. Lysimeters must be positioned in the appropriate locations and depths to provide a vertical distribution of vadose zone pore-fluid chemistry below the land spreading and irrigated areas of the EMS. Data collected from this vadose zone monitoring program shall be adequate to assist in the evaluation of irrigation efficiency at agricultural re-use.

2. Use of conventional ceramic soil suction lysimeters instead of pan lysimeters is acceptable.

3. Soil moisture sensors shall be placed at depths of 2, 3, 5, 10 and 14 feet below ground surface at each vadose zone monitoring station to signal the arrival of soil moisture as it approaches each lysimeter.

4. The District shall remove all non-operational vacuum suction lysimeters from the old vadose zone monitoring network and report completion no later than **January 1, 2006**.

5. The vadose zone monitoring system shall be sufficient to adequately monitor pore-moisture fluid from all representative soil types, irrigation methods and crop types.

6. Vadose zone monitoring shall be for the parameters and frequencies described in Table 1 below.

Table 1. Vadose Zone Parameters & Frequencies

Parameter	Units	Frequency
Total Kjeldahl Nitrogen	mg/L as N	Quarterly
Nitrate Nitrogen	mg/L as N	Quarterly
Ammonia Nitrogen	mg/L as N	Quarterly
Nitrite Nitrogen	mg/L as N	Quarterly
Total Dissolved Solids	mg/L	Quarterly
Bromoform	µg/L	Annually
Chloroform	µg/L	Annually
Dibromochloromethane	µg/L	Annually
Dichlorobromomethane	µg/L	Annually

7. Vadose zone monitoring shall be performed at the locations described in Table 2, below.

Table 2. Vadose Zone Monitoring Stations

Section	Pivot/Location	Number of Stations
9	1A0	1
	No. 2	1
	1AK – Cajon Loamy Sand	1
10	Pivot 5	1
	Pivot 7	3
	Pivot 1	1
	Pistachio Tree Farm	To Be Determined upon Final Acceptance of Vadose Sampling and Analysis Plan
11	Pivot 4 - Cajon Loamy Sand	1
15	Pivot 12	1

Monitoring and Reporting Program, 00-57-A01, Section I.G.2. – Effluent Management Site Monitoring – is replaced as follows.

"2. The following shall be reported in the Effluent Management Site Monitoring Report on a quarterly basis.

a. Monthly analyses and a summary, by a certified soil scientist or qualified agronomist, of the amount of water and nitrogen applied or is available to the crops per irrigated field (see I.G.1.b. above). The analyses must compare the actual water and nitrogen applications to those predicted in the Annual Cropping Plan and discuss any significant differences. Additionally, this monthly report must include an evaluation of the actual crop production using normally accepted quantifiable measure of crop growth status to that projected in the Annual Cropping Plan at harvest.

b. For each harvest completed during the quarter, the report must include the total amount of nitrogen harvested based on the results of site-specific plant tissue analyses. Conservative estimates of the amount of nitrogen harvested may be used in lieu of site-specific plant tissue analysis provided the estimate is justified by literature references. The production from the field may be determined by multiplying the number of bales by an average bale weight. The results of this calculation must be compared to the total amount of nitrogen applied to the crop from all sources (wastewater, other water, and fertilizer) or available during production. Any significant differences must be addressed in the context of this crop and any modifications needed to the overall Farm Management Plan or Annual Cropping Plan.

c. Recycled water balance for the quarter and the crop cycle including: the amount of water applied to each field (see G.1.b. above), water losses due to irrigation efficiency, evapotranspiration, and the amount of water in storage in the vadose zone or available for percolation below the root zone. These values must be compared to the values proposed in the Annual Cropping Plan and any significant differences must be addressed. If recycled water is blended with non-recycled water to meet the increased water demand during warmer seasons, the quantity and percentage of recycled water and the total water applied shall be determined and reported. Nitrogen content of non-recycled water shall also be determined and reported.

Monitoring and Reporting Program, 00-57-A01, Section I.G.3. – Effluent Management Site Monitoring – is replaced as follows.

3. Monthly, the Discharger shall make a Recycled Water Treatment and Use Report that includes, but is not limited to the following:

   a. Evidence of public and worker notification of the use of undisinfected reclaimed water, including use area posting as required in Cal. Code of Regs. Title 22, Section 60310(g).

   b. Evidence of effective ongoing worker training in the safe handling of undisinfected reclaimed water, and log of maintenance activity showing use of undisinfected recycled water stopped during required maintenance, and flow stoppage prior to harvest. Record of trainers/trainees, when and what subjects covered.

   d. List and location of special equipment provided to workers for handling undisinfected recycled water (i.e. gloves, respirators, and eye protection), record of provision and provisioner.

   e. Provisions for worker hygiene in the field when using undisinfected reclaimed water, such as provision and quantity of freshwater washdown water and protective measures for food and drink handling.

   f. Results of a daily use area inspection (when recycled water is used) to ensure that application of recycled water is consistent with use area criteria specified in Cal. Code of Regs, Title 22, Sections 60304(d) and 60310. Findings of the inspections shall be recorded in a permanent logbook maintained at the facility.

   g. The Operating Records as required in Cal. Code of Regs, Title 22, Section 60329 to demonstrate that all recycled water applied complies with the State Department of Health Services water recycling requirements specified in the Order. The information should include verification that the treatment levels from disinfected secondary recycled water were achieved and that the methods of recycled water application were implemented as required in Title 22, Cal. Code of Regs, Section 60304(d).

Monitoring and Reporting Program, 00-57-A01, Section II - REPORTING, B. Submittal Periods, Item 3 - is changed as follows.

3. An annual monitoring report for the period from January to December shall be submitted by March 1st of each year. The report must contain:

a. A summary and evaluation of the monthly and quarterly information in Reporting Requirement II.B.1 and II.B.2, which also includes compliance status;

b. The names and grades of all the certified operators;

c. Chemical Use Monitoring reporting information discussed in section I.H;

d. The annual Federal Biosolids Report

Ordered by: _____ Dated: October 13, 2004
HAROLD J. SINGER
EXECUTIVE OFFICER

JC/rp S/BO2004/LACSD20 MRP 57-A03