California Regional Water Quality Control Board
Lahontan Region

Linda S. Adams
Secretary for
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Arnold Schwarzenegger
Governor

January 26, 2009

TO: ATTACHED MAILING LIST

WDID NO. 6B369805001

TENTATIVE REVISED WASTE DISCHARGE REQUIREMENTS FOR ADELANTO PUBLIC UTILITY AUTHORITY, San Bernardino County

Enclosed are tentative Waste Discharge Requirements (WDRs) for the above subject.

The California Regional Water Quality Control Board requests that you review the enclosed documents and provide us with your written comments no later than **February 24, 2009**. Comments received after that date cannot be given full consideration in preparation of the recommended Board Order to be presented to the Regional Board for adoption at the meeting scheduled for April 16, 2009.

If you need further information regarding the WDRs, please contact our office.

Sincerely,

Rebecca Phillips

Rebecca Phillips
Office Technician

Enclosures: Tentative Board Order
Comment form

cc: Mailing List

Notice
Submittal of Written Material for Regional Board Consideration

In order to ensure that the State of California Lahontan Regional Water Quality Control Board has the opportunity to fully study and consider written material, it is necessary to submit it at least ten (10) days before the Regional Board Meeting. Pursuant to Title 23 of the California Code of Regulations, Section 648.2, the Regional Board may refuse to admit written testimony into evidence unless the proponent can demonstrate why he or she was unable to submit the material on time or that compliance with the deadline would otherwise create a hardship. If any other party demonstrates prejudice resulting from admission of the written testimony, the Regional Board may refuse to admit it.

COMPLETE FORM AND RETURN

To: CA Regional Water Quality Control Board, Lahontan Region
14440 Civic Drive, Suite 200
Victorville, CA 92392
ATTN: John Morales

Comments on Adelanto Public Utility Authority

_____We concur with proposed requirements

_____We concur; comments attached

_____We do not concur; comments attached

_____(Sign)

_____(Type or print name)

_____(Organization)

_____(Address)

_____(City and State)

_____(Telephone)

JIM BIELKE
ADELANTO PUBLIC UTILITY
AUTHORITY

GREG WILTFONG
ADELANTO WASTEWATER TREATMENT
FACILITY

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6V-2009-(TENTATIVE)
WDID NO. 6B369805001

REVISED WASTE DISCHARGE REQUIREMENTS

FOR
ADELANTO PUBLIC UTILITY AUTHORITY
ADELANTO DOMESTIC WASTEWATER TREATMENT FACILITY

San Bernardino County

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

1. Discharger

   The Adelanto Public Utility Authority has submitted a complete Revised Report of Waste Discharge (Revised RWD) for its Domestic Wastewater Treatment Facility (Adelanto Treatment Facility). The Revised RWD consists of transmittals received on July 15, 2008 and September 5, 2008. Reports listed in Attachment C – List of References have also been submitted regarding facility operations. For the purpose of this Regional Board Order, the Adelanto Public Utility Authority is the "Discharger."

2. Facility

   The Discharger collects, treats and disposes of an average of 2.2 million gallons per day (mgd) of wastewater generated within the City of Adelanto. The Adelanto Treatment Facility receives domestic wastewater, industrial wastewater (both pretreated and not pretreated). The facility does not currently receive septage but may in the future. The facilities which are regulated under this Order are the:

   a. Collection System,
   b. Adelanto Treatment Facility, and
   c. five (5) Percolation Ponds.

3. Permit History

   The Regional Board initially established Waste Discharge Requirements (WDRs) for the Facilities under Board Order No. 6-98-56 adopted on September 3, 1998. Before September 15, 1998, all untreated wastewater from the Discharger's collection system was treated and disposed at the Victor Valley Wastewater Reclamation Authority (VVWRA) Treatment Facility. The Regional Board subsequently amended WDRs (Board Order No. 6-98-56A1) on November 5, 1998 to authorize the Adelanto Treatment Facility to receive and treat septage generated

in the Victor Valley. The Regional Board revised WDRs for the discharge on September 11, 2002, R6V-2002-050 to allow an increase in the volume of septage received. A Cease and Desist Order No. R6V-2007-24 was adopted on August 29, 2007 to address violations of discharger specifications contained in Board Order No. R6V-2002-050 (WDR).

4. Reason for Action

The Regional Board is revising the WDRs in response to the Revised RWD filed by the Discharger. The Revised RWD submitted by the Discharger proposes an increase in the flow from 1.5 MGD to 4.0 MGD to the Adelanto treatment facility. The Discharger is also constructing new facilities to treat wastewater using the Micromedia process.

The existing plant currently discharges to three percolation ponds. The combined effluent from the existing plant and the new Micromedia plant will discharge into two additional ponds, for a total of five percolation pond.

In addition, these Revised WDRs:

a. Establish a schedule the Discharger must follow to submit a technical report to evaluate the magnitude and extent of groundwater degradation caused by total dissolved solids (TDS) and other potential contaminant discharges from the Discharger's Percolation Ponds.

b. Establish revised effluent limits; and

c. Update the Monitoring and Reporting Program.

5. Location of Facilities

The Adelanto Treatment Facility and Percolation Ponds are located within an 18-acre site owned by the Discharger. The site is located in the City of Adelanto, approximately 1.5 miles north of the City of Adelanto Governmental Center and 0.5 miles east of Highway 395 at the northeast corner of Jonathan Street and Auburn Avenue, San Bernardino County. It is located within Section 21, T6N, R5W, SBB&M as shown on Attachments A, B and C, which are made part of this Order.

6. Influent Waste Streams

a The present flow to the Adelanto Wastewater Treatment Plant is about 2.1 to 2.2 MGD. Based on the 4.0 MGD average capacity requested for this WDR-application, the balance of the treatment plant capacity should be able to handle the equivalent population increase for approximately 14 years, using the average growth of about 606 equivalent capacity units per year.

b. Industrial Wastewater Source Control

The Discharger has established an Industrial Wastewater Source Control and Pretreatment Program (Source Control Program), and a Septage Load Checking Program. Reports dated August 21, 1998 and March 10, 2000 provide documentation and detailed descriptions of the programs. The Programs are for reducing the amount of non-residential pollutants discharged to the sewer system and Adelanto Treatment Facility to achieve the following objectives:

i. Provide protection against discharges that may be toxic to the biological treatment organisms;
ii. Ensure reliability of the treatment system;
iii. Protect groundwater quality; and
iv. Ensure that sludge and solids generated at the Adelanto Treatment Facility are not hazardous.

The Source Control Program is to regulate non-residential wastewater discharges to the sewer system. It includes an ordinance and an Industrial Pretreatment Enforcement Response Guide. The Septage Load Checking Program is to ensure that the Adelanto Treatment Facility receives only pumpings from those sources described in Finding No. 6.a, and the pumpings meet the above objectives. (*Adelanto, 1998a*) (*Adelanto, 2000*)

7. Description of Treatment Facilities

The treatment plant consists of facilities for activated sludge treatment and those used for the Micromedia process. The new treatment technology is comprised of a "clean screen" primary separator, a Micromedia sand filter with coagulation and a biological oxidation tank. The majority of the suspended particles from the incoming wastewater will be filtered out, reducing the BOD at the secondary bio-filters.

Treatment and storage systems located at the Adelanto Treatment Facility are described in Table No. 1.

Table No. 1
Treatment and Storage Systems

Treatment and Storage Systems	No. of Units	Description
Septage Receiving Station [1]		**To be determined**
Screening and Degritting		
Aerated Storage Tank		
Solids Storage (Dumpster)		
Wastewater		
Headworks (preliminary treatment)	1	An underground pipeline transports sewage, pretreated septage from the Septage Receiving Station to the headworks for further treatment
Lined Activated Sludge Basins	2	Subsurface diffusion aerators maintain aerated and anoxic zones within basins for nitrification and denitrification
Secondary Clarifiers	2	---
Multi-Media Filtration	1	Traveling-hood backwash system
Percolation Ponds	5	Total area (Acres)
Micromedia Treatment plant		
Clean screen separator	3	The clean screen separator is a continuous belt which filters out settleable & suspended solid particles from the incoming wastewater, which in turn reduces the BOD to the Micromedia sand filter and biological oxidation tank.
Micromedia sand filter w/coagulation	12 trains	The filtrate will receive a small amount of coagulant . Air is pumped into the filter for recirculation of the sand bed.
Sludge		
Gravity Thickener	1	---
Dewatering Centrifuge	1	The second centrifuge is currently being installed
Dewatered Sludge Storage Pad	1	The Pad is constructed of Portland cement concrete (concrete). It includes concrete curbs and is constructed to drain to a sump plumbed to the Adelanto Treatment Facility headworks. In the event of centrifuge malfunction, the Discharger may temporarily use the Pad to dewater sludge from the gravity thickener.

The Adelanto Treatment Facility is designed to treat an average daily flow of 4.0 mgd and a maximum instantaneous flow rate of 6.0 mgd. Operational data for the Adelanto Treatment Facility indicates the facility is only able to handle 0.010 mgd with the one existing sludge-dewatering centrifuge.

[1] Septage is not currently allowed as described in CDO No. R6V-2007-0024

8. Description of Effluent

The Adelanto Treatment Facility is designed to produce effluent that meets the requirements of Disinfected Tertiary Recycled Water as defined in Section 60301.230, Title 22, California Code of Regulations (22 CCR section 60301.230) and total nitrogen concentrations of less than 10 mg/L as N.

These Revised WDRs acknowledge that the Adelanto Treatment Facility is capable of producing Disinfected Tertiary Recycled Water. The Revised WDRs, however, neither approve nor establish requirements for project(s) to use the recycled water. Such projects are separate from the project regulated by these Revised WDRs. Any person who proposes to use recycled water must obtain water reclamation requirements separately. At this time, the Regional Board has not received any such proposals.

9. Authorized Disposal Sites

Adelanto Treatment Facility effluent is currently disposed to the Percolation Ponds, which are located within the 18-acre site owned by the Discharger, as shown in Attachment B. The only authorized disposal sites for the Adelanto Treatment Facility effluent are the five (5) Percolation Ponds.

10. Treatment and Disposal Capacity

A provision of this Order requires the Discharger to submit a Technical Report to the Regional Board office once the flow reaches 75 percent of the design capacity providing information describing how the Discharger will prevent an exceedance of the treatment and disposal capacity.

11. Sludge/Solids Disposal

Solid debris (screenings) removed at the headworks of the Adelanto Treatment Facility are hauled offsite for legal disposal at the Victorville Municipal Landfill.

Currently, the Discharger sells centrifuge sludge cake (sludge) generated at the Adelanto Treatment Facility to cement plants where it is burned along with fuel used to heat the kilns. The Discharger also sells the sludge to composting operations. The Discharger's Sludge Management Plan (*Adelanto, 1999*) also proposes two additional options consisting of sludge disposal at an offsite landfill and sludge application to land within the City of Adelanto. The Regional Board has not permitted application of the Discharger's sludge to land within the City of Adelanto. The Discharger must file a complete application with the Regional Board before the Board can consider approval of this proposal.

12. Recycling Regulation

The State Department of Health Services (SDHS) has established statewide requirements (contained in Title 22, CCR, Section 60301 et. seq) for production and use of recycled water. This Order acknowledges that the Discharger generates effluent that meets criteria for use of recycled water for certain purposes. In accordance with Section 13523 of the California Water Code (CWC), the Regional Board consulted with and received the recommendations of the SDHS concerning requirements incorporated within this Order. Before the Producer may supply recycled water to a party wishing to use recycled water (user), the user must obtain all necessary approvals.

13. Surface Hydrology

The ground surface in the area where the Percolation Ponds are located slopes from the southeast to the northwest at a gradient of 0.6 percent. The 18-acre site is within the 98-square-mile Fremont wash drainage area that drains generally to the northeast eventually joining the Mojave River. Surface runoff caused by storms is via numerous dry washes and sheet flow across open desert. The East Adelanto wash, tributary to the Fremont wash, passes the site approximately 0.25 miles to the west.

14. Site Hydrogeology

The site is located on a broad Pleistocene alluvial fan sloping gently toward the north and northwest. A shallow caliche layer exists at the 18-acre site. The bottoms of the Percolation Ponds are located below the caliche layer.

Before discharge to the Percolation Ponds began on September 15, 1998, the depth to the groundwater table for the Upper Aquifer was 95 feet (As indicated in Table No. 2). Since that date, there has been downward migration of effluent from the Percolation Ponds and the creation of a groundwater mound.

Table No. 2
Summary of Hydrogeology Beneath the 18-Acre Site

Zone	Depth (Feet bgs)
Upper aquifer (alluvial)	95 to 170
Aquitard (Clayey soil layer)	170 to 230
Regional Aquifer (alluvial)	230 to < 650
Bedrock	Starts at 650

The full lateral extent of the Upper Aquifer is not known. Site investigation results indicate that its lateral dimensions are at least three miles on each side.

15. Groundwater Quality

Table No. 3 summarizes results for sampling of monitoring wells located at the 18-acre site both before and after the Adelanto Treatment Facility startup on September 15, 1998:

Table No. 3
Groundwater Quality (Upper Aquifer)

Date	TDS (mg/L)	Nitrate as N (mg/L)
September 9, 1998	500	10 to 15
July 2001	400 to 600	< 0.4 to 7
September 2008	530 to 840	<0.4 to 6.4

16. Receiving Waters

The receiving waters are the groundwaters of the Upper Mojave Hydrologic Area of the Mojave Hydrologic Unit (Department of Water Resources Unit No. 628.20)

17. Lahontan Basin Plan

The Regional Board adopted a Water Quality Control Plan for the Lahontan Basin (Basin Plan) which became effective on March 31, 1995, and this Order implements the plan as amended.

18. Beneficial Uses

The beneficial uses of the groundwaters of the Upper Mojave Hydrologic Area of the Mojave Hydrologic Unit as set forth and defined in the Basin Plan are:

a. municipal and domestic supply (MUN);
b. agricultural supply (AGR);
c. industrial service supply (IND);
d. freshwater replenishment (FRSH); and
e. aquaculture (AQUA).

19. Non-degradation

State Water Resources Control Board Resolution No. 68-16 (Statement of Policy for Maintaining High Quality of Waters in California) is called the non-degradation objective in the Basin Plan. This objective requires maintenance of existing high quality in surface waters, groundwaters and wetlands. Whenever the existing quality of water is better than the quality of water established in the Basin Plan, such existing quality shall be maintained unless appropriate findings are made

under Resolution No. 68-16. The cumulative effect of the discharge and other discharges (not regulated by this Order) are believed to be causing an overall trend of TDS increases in the Mojave River watershed. The Regional Board acknowledges that there may be TDS and nitrate degradation of groundwater in the Upper Aquifer if the Discharger continues the current discharge to the Percolation Ponds. TDS and nitrate concentrations in the Adelanto Treatment Facility discharge to the Percolation Ponds exceed concentrations believed to be representative of the background water quality for the Upper Aquifer. The average TDS for the discharge, which is 506 mg/L, slightly exceeds the secondary maximum contaminant level (MCL) for TDS, which is 500 mg/L. Nitrates in the Discharge are below the primary MCL of 10 mg/L as N.

A provision of these Revised WDRs includes a schedule the Discharger must meet to prepare a Report for quantifying the magnitude and extent of the contribution to TDS degradation of groundwater from use of the Percolation Ponds for disposal.

20. California Environmental Quality Act (CEQA) Compliance

The City of Adelanto certified a Negative Declaration for the existing Facilities on May 27, 1997. The City also certified an addendum to the Negative Declaration on September 22, 1998 in accordance with the CEQA (Public Resources Code, Section 21000 et seq.). That addendum addressed the Septage Receiving Station located at the Adelanto Treatment Facility. The city of Adelanto certified a Negative Declaration for the facilities on April 23, 2008.

The May 27, 1997 Negative Declaration, September 22, 1998 addendum and the Initial Studies supporting the Negative Declarations do not address future projects that may use recycled water produced by the Adelanto Treatment Facility. Before the recycled water can be used a potential user must obtain required approvals separately.

21. Notification of Interested Parties

The Regional Board has notified the Discharger and interested parties of its intent to issue Revised WDRs for the discharge.

22. Consideration of Public Comments

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. The total volume of flow to the Adelanto Treatment Facility, during a 24-hour period, shall not exceed 6.0 million gallons once the new facilities are constructed.

2. The maximum (peak) instantaneous flow rate to the Adelanto Treatment Facility shall not exceed 8.0 mgd once the new facilities are constructed. Prior to construction of the new facilities the maximum instantaneous flow rate shall not exceed 4.0 mgd.

3. The amount of septage received at the Adelanto Treatment Facility shall not exceed a total volume of 0.010 million gallons during a 24-hour period.

4. All wastewater discharged to the authorized disposal sites shall not contain concentrations of parameter in excess of the following limits:

Parameter	Units	30-Day Mean[2]	Daily Maximum[3]
BOD[4]	mg/L	20[5]	30
Methylene Blue Active Substances	mg/L	1.0	2.0

5. All wastewater discharged to the authorized disposal sites shall have pH of not less than 6.0 pH units nor more than 9.0 pH units.

6. All wastewater discharged to the authorized disposal sites shall have dissolved oxygen concentration not less than 1.0 mg/L.

7. All wastewater discharged to the authorized disposal sites shall not contain concentrations of organic constituents in excess of primary drinking water standards as established by the California Department of Health Services.

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[2] Compliance is determined by comparing the limit to the arithmetic mean of laboratory results for 6-hour composite samples collected during a period of 30 days.
[3] Compliance is determined by comparing the limit to the laboratory result for any 6-hour composite sample.
[4] Biochemical Oxygen Demand (five-day, 20°C) of an unfiltered sample.
[5] This level assumes water produced will not be used as reclaimed wastewater. The Discharger must submit a revised application if proposing reclaimed water use.

B. Receiving Water Limitations

1. This discharge shall not cause a violation of any applicable water quality standards for receiving water adopted by the Regional Board or the State Water Resources Control Board.

2. The discharge shall not cause groundwaters of the Mojave Hydrologic Unit to contain:

   a. Bacteria: A median concentration of coliform organisms over any seven-day period that is in excess of (or equal to) 1.1MPN/100 milliliters;

   b. Chemical Constituents: Concentrations of chemical constituents in excess of the MCL or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of Title 22 of the CCR which are incorporated by reference into this Order: Table 64431-A of Section 64431 (Inorganic Chemicals), Table 64433.2-A of Section 64433.2 (Fluoride), Table 64444-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.);

   Concentrations of chemical constituents that adversely affect the water for beneficial uses, including the beneficial use AGR;

   c. Radioactivity: Concentrations of radionuclides in excess of the limits specified in Table 4 of Section 64443 (Radioactivity) of Title 22 of the CCR, which is incorporated by reference into this Order. (This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.); and

   d. Taste and Odors: Taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses.

C. Recycling Requirements

These WDRs only authorize discharge of the effluent (recycled water) to the authorized disposal sites (Percolation Ponds) described in Finding No. 9 and do not authorize discharge of the recycled water to any other site(s).

D. General Requirements and Prohibitions

1. There shall be no discharge, bypass, or diversion of raw or partially treated sewage, sewage sludge, grease, or oils from the collection, transport, treatment, or disposal facilities to adjacent land areas or surface waters.

2. Surface flow or visible discharge of sewage or sewage effluent at/or from the authorized disposal sites to adjacent land areas or surface waters is prohibited.

3. The vertical distance between the liquid surface elevation and the lowest point of a pond dike or the invert of an overflow structure shall not be less than two feet.

4. The discharge shall not cause a pollution as defined in Section 13050 of the CWC, or a threatened pollution.

5. Neither the treatment nor the discharge shall cause a nuisance as defined in Section 13050 of the CWC. The discharge of wastewater except to the authorized disposal sites is prohibited.

6. The Discharger shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices.

II. PROVISIONS

A. Operator Certification

The Discharger's wastewater treatment facility shall be supervised by persons possessing a wastewater treatment facility operator certificate of appropriate grade pursuant to Chapter 3, Subchapter 14, Title 23, CCR.

B. Rescission of Waste Discharge Requirements

Board Orders No. 6-98-56 and 6-98-56A1 are hereby rescinded.

C. Time Schedules

By **August 31, 2009**, the Discharger shall submit a groundwater investigation work Plan (work plan). The work plan shall identify methods to verify predicted contaminant constituent movement over time. The work plan shall describe methods and procedures to establish the nature and full lateral and vertical extent of contaminants caused by the discharge greater than natural background. Methods shall include, but are not limited to, installation or designation of groundwater monitoring wells at sufficient

locations and depths to verify the magnitude and movement of contaminant constituents in groundwater.

1. The percolation rate shall be specified as a function of the composition of the vadose zone; a complete description of the lithology must be provided.

2. A discussion of whether there is a formation of a plume beneath disposal ponds shall be provided. Constituents of the plume shall be defined, including the vertical and horizontal dimension and the rate of travel of the plume.

3. Quantitative information as to the effects of the existing and proposed discharge on water quality due to the influence from organic constituents and any other constituents present in the discharge shall be provided.

4. Analysis of the discharge shall provide the following information:

   a. an evaluation that predicts the effects on the condition of groundwater as a result of the discharge; and

   b. A process flow diagram showing the process as a line diagram of the treatment plant, including all bypass piping. The process flow diagram shall include flow, constituent concentrations, suspended solids and BOD at all points before and after each process equipment of the plant.

D. The Discharger must submit a Technical Report to the Regional Board office once the flow reaches 75 percent of the design capacity providing information showing how the Discharger will prevent exceedance of the treatment and disposal capacity.

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 April 16, 2009.

_____

HAROLD J. SINGER
EXECUTIVE OFFICER

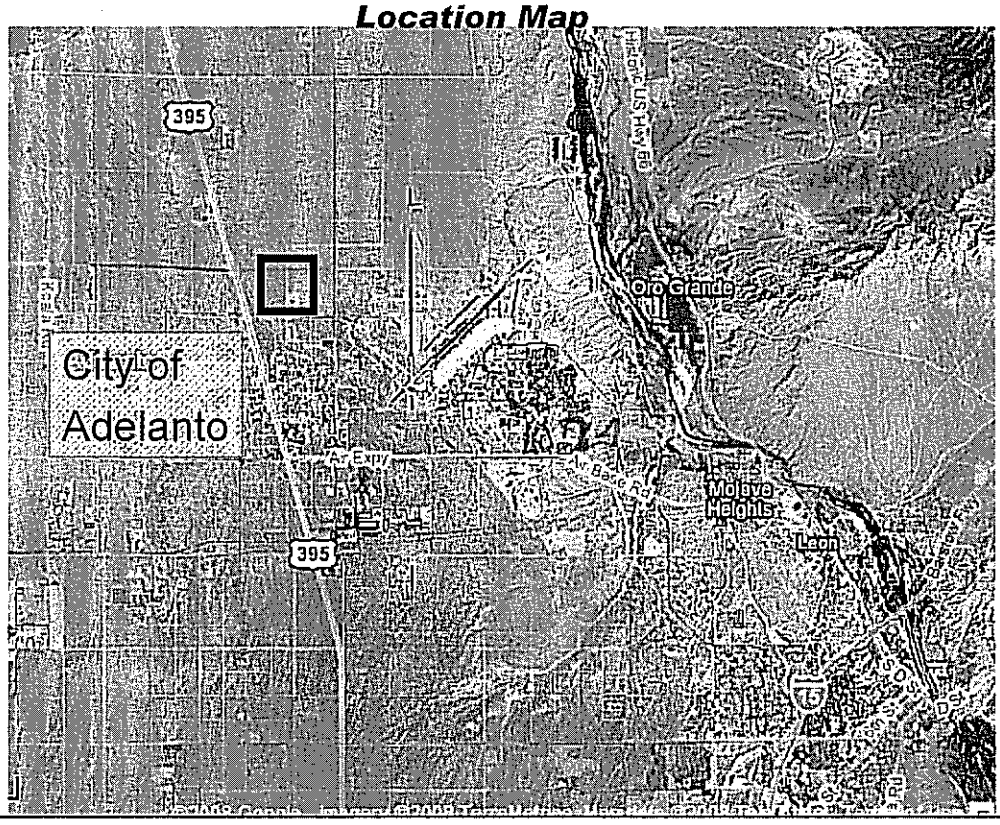
Attachments:
A. Location Map
B. Facilities Layout
C. List of References
D. Standard Provisions for Waste Discharge Requirements

JM/rp BO2009/Adelanto WTF/Tentative

Attachment A

Site of the Wastewater Treatment Facility and Percolation ponds

Location Map



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Attachment B
Adelanto Public Utility Authority
Facilities Layout
Wastewater Treatment Facility and Percolation Ponds

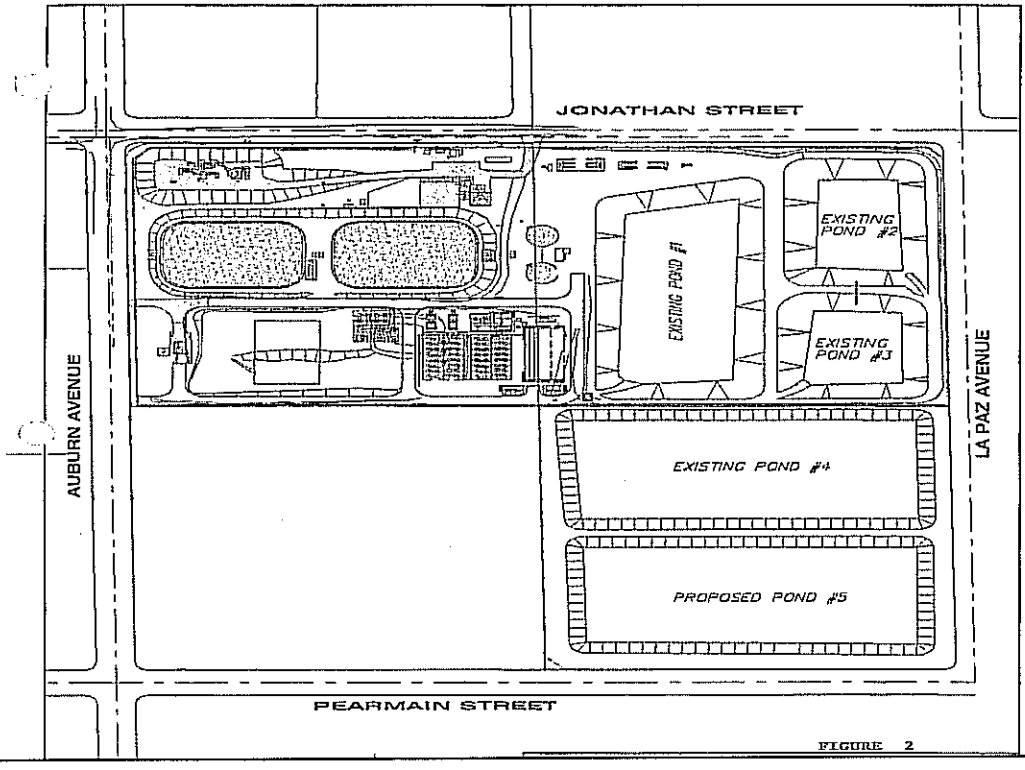

FIGURE 2

ATTACHMENT C
REFERENCES

1. Adelanto Public Utility Authority (Adelanto), 1998a, Supplemental Information Report to Support Application for Facility Permit/Waste Discharge for Adelanto Public Utility Authority (PUA) Septage Receiving Station, Prepared by Adelanto and Urban Logics Consultants, August 21

2. Adelanto, 1998b, Acceptance of Carwash Clarifier Waste, Septage Receiving Station in Adelanto, Prepared by Urban Logics Consultants, October 9

3. Adelanto, 1998c, Monitoring Well Installation MW-2 and MW-3, Prepared by Urban Logics Consultants, October 28

4. Adelanto, 1999, Proposed Sludge Management Plan, Adelanto Wastewater Reclamation Facility, Prepared by Urban Logics Consultants, January 20

5. Adelanto, 2000, Inventory of Significant Users and Industrial Pretreatment Enforcement Response Guide (ERG), Prepared by Adelanto, March 10.

6. Adelanto, 2002, Amended Site Plan, Prepared by Urban Logics Consultants (ULC) on August 7, 1997 and amended by Greg Wiltfong of ULC on January 2, 2002

7. California Regional Water Quality Control Board (CRWQCB), 1995, Water Quality Control Plan for the Lahontan Basin (Basin Plan), March 31

8. DOD, 1996, George Air Force Base Operable Unit 3 Remedial Investigation, Prepared by Montgomery Watson, April

9. Adelanto, 2008, Application and Report of Waste Discharge, Section 1 – Introduction and Characterization of Discharge; Section 2 – Description of Treatment Process / Schematic.

10. Adelanto, 2009, CDO Quarterly Reports; 6th Quarterly Report, Prepared by Adelanto, January 15, 2009.

11. Adelanto, 2009, e-mail from Wilson So, Consultant for the Adelanto Public Utility Authority; Revised WDR pending information, January 9, 2009, 11:28AM.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

STANDARD PROVISIONS
FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The Discharger shall permit Regional Board staff:

a. to enter upon premises in which an effluent source is located or in which any required records are kept;

b. to copy any records relating to the discharge or relating to compliance with the Waste Discharge Requirements (WDRs);

c. to inspect monitoring equipment or records; and

d. to sample any discharge.

2. Reporting Requirements

a. Pursuant to California Water Code 13267(b), the Discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.

b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.

c. The Owners/Discharger of property subject to WDRs shall be considered to have a continuing responsibility for ensuring compliance with applicable WDRs in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the WDRs shall be reported to the Regional Board. Notification of applicable WDRs shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.

d. If a Discharger becomes aware that any information submitted to the Regional Board is incorrect, the Discharger shall immediately notify the Regional Board, in writing, and correct that information.

e. Reports required by the WDRs, and other information requested by the Regional Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation.

f. If the Discharger becomes aware that their WDRs (or permit) are no longer needed (because the project will not be built or the discharge will cease) the Discharger shall notify the Regional Board in writing and request that their WDRs (or permit) be rescinded.

3. Right to Revise WDRs

The Regional Board reserves the privilege of changing all or any portion of the WDRs upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the WDRs may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and re-issuance, or modification.

5. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the WDRs which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the WDRs. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger, when necessary to achieve compliance with the conditions of the WDRs.

7. Waste Discharge Requirement Actions

The WDRs may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for waste discharge requirement modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the WDRs conditions.

8. Property Rights

The WDRs do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the WDRs including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the WDRs shall be kept and maintained by the Discharger and be available at all times to operating personnel.

11. Severability

Provisions of the WDRs are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from treatment and disposal facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operation. The owner/operator must request the transfer in writing and receive written approval from the Regional Board's Executive Officer.

14. Definitions

a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.

b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM NO. R6V-2009-(TENTATIVE)
WDID NO. 6B369805001

FOR

ADELANTO PUBLIC UTILITY AUTHORITY
ADELANTO DOMESTIC WASTEWATER TREATMENT FACILITY

San Bernardino County

I. MONITORING

A. Flow Monitoring

The Discharger shall monitor the following:

1. The total volume, in million gallons, of wastewater flow to the treatment facility for each day.

2. The total volume, in million gallons, of wastewater flow to the treatment facility for each month.

3. The average flow rate, in million gallons per day (mgd), of wastewater to the treatment facility calculated for each month.

4. The maximum instantaneous flow rate, in mgd, of wastewater to the treatment facility that occurs each day.

5. The total volume, in million gallons, of wastewater flow to the percolation ponds for each month.

6. The freeboard (distance from the top of the lowest part of the dike to the wastewater surface in the pond) measured each day in each percolation pond. If a percolation pond does not contain wastewater, indicate that it is empty.

B. Plant Influent Monitoring

Samples of influent wastewater shall be collected and analyzed to determine the magnitude of the following parameters:

Parameter	Units	Type of Sample	Frequency
Biochemical Oxygen Demand	mg/L	6-hour composite	Weekly
Total Suspended Solids (TSS)	mg/L	6-hour composite	Weekly
Methylene Blue Active Substances	mg/L	6-hour composite	Monthly
Total Cyanide	mg/L	6-hour composite	Annually
Total Phenols[1]	mg/L as	6-hour composite	Annually

Parameter	Units	Type of Sample	Frequency
	C_6H_5OH		
Volatile Organic Compounds (VOCs)[2]	mg/L	Grab	Annually
Semivolatile Organic Compounds (SVOCs)[3]	mg/L	6-hour composite	Annually
Heavy Metals[4]	mg/L	6-hour composite	Annually
Total Recoverable Petroleum Hydrocarbons[5]	mg/L	6-hour composite	Annually

C. Plant Effluent Monitoring

Samples of the final effluent from the wastewater treatment facility shall be collected and analyzed to determine the magnitude of the following parameters:

Parameter	Units	Type of Sample	Frequency
Biochemical Oxygen Demand	mg/L	6-hour composite	Weekly
Chemical Oxygen Demand	mg/L	6-hour composite	Weekly
Dissolved Oxygen	mg/L	Grab	Weekly
Ph	pH Units	Grab	Weekly
Methylene Blue Active Substances	mg/L	6-hour composite	Twice per Month
Oil and Grease	mg/L	6-hour composite	Twice per Month
Kjeldahl Nitrogen	mg/L as N	6-hour composite	Monthly
Nitrate Nitrogen	mg/L as N	6-hour composite	Monthly
Ammonia Nitrogen	mg/L as N	6-hour composite	Monthly
Total Dissolved Solids	mg/L	24-hour composite	Quarterly
Total Hardness	mg/L	24-hour composite	Quarterly
Boron	mg/L	24-hour composite	Quarterly
Fluoride	mg/L	24-hour composite	Quarterly
Chloride	mg/L	24-hour composite	Quarterly
Sodium	mg/L	24-hour composite	Quarterly
Sulfate	mg/L	24-hour composite	Quarterly
Sulfide	mg/L	Grab	Quarterly
Total Cyanide	mg/L	Grab	Quarterly
Total Phenols	mg/L as C_6H_5OH	24-hour composite	Quarterly
Total chromium[6]	mg/L	24-hour composite	Quarterly
Hexavalent Chromium[6]	mg/L	24-hour composite	Quarterly
Volatile Organic Compounds (VOCs)	mg/L	Grab	Quarterly
Semivolatile Organic Compounds (SVOCs)	mg/L	24-hour composite	Quarterly
Heavy Metals			
Total Recoverable Petroleum Hydrocarbons	mg/L	24-hour composite	Quarterly

D. Ground Water Monitoring

1. At a minimum, samples from ground water monitoring well Nos. MW-1, MW-2, MW-4 and MW-5 shall be collected and analyzed to determine the magnitude of the following parameters:

Parameter	Units	Frequency
Methylene Blue Active Substances	mg/L	Quarterly
Kjeldahl Nitrogen	mg/L as N	Quarterly
Nitrate Nitrogen	mg/L as N	Quarterly
Ammonia Nitrogen	mg/L as N	Quarterly
Total Dissolved Solids	mg/L	Quarterly
Chlorides	mg/L	Quarterly
Sulfates	mg/L	Quarterly
Fluoride	mg/L	Quarterly
Boron	mg/L	Quarterly
Total Phenols	mg/L	Quarterly
Volatile Organic Compounds (VOCs)	mg/L	Quarterly
Semivolatile Organic Compounds (SVOCs)	mg/L	Quarterly
Total Recoverable Petroleum Hydrocarbons	mg/L	Quarterly

MW-3 shall also be utilized to monitor groundwater elevation in the area where water percolates from the vadose zone into the saturated zone. MW-4 & MW-5 shall be used to obtain background levels and MW-1 & MW-2 shall be used to monitor the discharge from the treatment process.

2. Each time a well is sampled, the Discharger shall:

   a. Measure and record the depth below the ground surface and the elevation above mean sea level of the ground water surface in the ground water monitoring wells.

   b. Plot the above-described elevations and elevation isopleths on an 11" x 17" copy of a site plan, which shows the locations of the Facility and monitoring wells.

   c. Calculate and record the ground water gradient, the direction of the gradient, and velocity of ground water flow at the authorized disposal/recycle sites.

   d. Monitor and record the horizontal extension of any mound formed.

   e. Provide concentration contour maps for any constituents detected above background levels.

   f. Monitor the wells for the following field parameters:

Parameter	Units
Electrical Conductivity (E_c)	µMHOS/CM
Ph	Ph Units
Temperature	^{o}F or ^{o}C

3. For any ground water wells installed, the Discharger shall prepare a Water Well Driller's Report and file it with the California Department of Water Resources in accordance with the provisions of Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code (CWC Section 13750 through 13755). All work and reports shall be completed by (or under the supervision of) a California registered civil engineer, geologist or certified engineering geologist. The Discharger is responsible for obtaining all applicable permits before starting work and complying with CWC Section 13750 through 13755, and applicable County and State Well Standards.

E. Supply Water Monitoring

1. For each semiannual period; chemical analysis of a supply water sample, which is representative of the average municipal water used within the pertaining sewered area, shall be submitted to the Regional Board. Municipal water samples for this analysis shall be collected during the same day that effluent samples are collected.

Parameter	Units
Total Dissolved Solids	mg/L
Total Hardness as $CaCO_3$	mg/L
Chloride	mg/L
Sulfate	mg/L
Fluoride	mg/L
Boron	mg/L
Heavy Metals[3]	mg/L

The following methods of obtaining a representative chemical analysis of the municipal water will be acceptable:

a. A chemical analysis shall be conducted on a composite sample of the different municipal waters used in the sewered area. This composite sample shall be weighted in proportion to the estimated semiannual volume of water contributed to the sewer system by each municipal water source.

b. The constituent concentrations expected in the average municipal water used in the sewered area can be mathematically calculated, if the estimated semiannual volume of water contributed to the

sewer system by each municipal water source and the constituent concentrations in each municipal water source for that semiannual period are known. The estimated volume (million gallons) of water contributed to the sewer system by each municipal water source shall be recorded for each semiannual period.

F. Sludge Monitoring

1. The Discharger has prepared a Sludge Management Plan dated January 20, 1999. The Discharger shall submit subsequent annual reports summarizing disposal of sludge in accordance with the provisions of the plan with the last annual self-monitoring report.

2. The Discharger shall report to the Regional Board all information necessary to comply with the U.S. Environmental Protection Agency Sludge Management Regulations contained in Section 503 of the Federal Clean Water Act.

G. Pretreatment/Source-Control

1. The Discharger has established an Industrial Wastewater Source Control and Pretreatment Program (Source Control Program). Reports dated August 21, 1998 and March 10, 2000 provide documentation and detailed descriptions of the program.

   The Discharger shall submit an annual pretreatment/source-control report, which includes, but is not limited to, the following information:

   a. An inventory of significant industrial users, including names, addresses, categories, industrial pollutants, and volumes. A significant industrial use is either:

      i. An industrial user discharging more than 25,000 gallons per day;
      ii. A categorical industrial user as defined in 40 CFR 400-471; or
      iii. A use that can cause upset, pass through, or interference to the wastewater treatment plant.

   b. A discussion of upset, interference, or pass through incidents, if any, at the treatment plant which the Discharger knows or suspects was caused by industrial users.

   c. A discussion of enforcement actions taken or proposed.

   d. A summary of the pretreatment/source-control functions including, but not limited to:

i. Necessary legal authorities;
ii. Pretreatment/source-control requirements; and
iii. Status of funding and personnel to implement the pretreatment/source-control program.

H. Biosolids Disposal

The bio-solids drop onto heavy duty plastic containers at about 25% to 35% solids content. The City's operations staff will compost and then dispose of the dry solids to a legal disposal or re-use location.

I. Odor Monitoring

The septage receiving station and associated septage solids handling facilities and the plant area shall be monitored, with results recorded daily, for the detection of odor and/or vector nuisance or potential nuisance conditions.

II. REPORTING

A. General Provisions

The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of this Monitoring and Reporting Program.

B. Pursuant to General Provision No. 1d. of the General Provisions for Monitoring and Reporting, the Discharger shall submit to the Regional Board by **October 31, 2009**, a Sampling and Analysis Plan (SAP) for consideration of approval. The SAP shall include a detailed description of procedures and techniques for:

i. Sample collection, including purging techniques, sampling equipment, and decontamination of sampling equipment;
ii. Sample preservation and shipment;
iii. Analytical procedures;
iv. Chain of custody control; and
v. Quality assurance/quality control (QA/QC).

C. Quarterly Reports

Beginning on **July 31, 2009**, quarterly monitoring reports including the preceding information shall be submitted to the Regional Board before the end of the month following each quarterly monitoring period.

D. Annual Report

By **March 30th** of each year, the Discharger shall submit an annual report to the Regional Board with the following information:

1. The compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the discharge requirements.

2. A time schedule for additional proposed compliance actions.

3. Any needed updates to the SAP.

4. Graphical and tabular data for the monitoring data obtained for the previous year.

Ordered by: _____ Dated: **April 16, 2009**

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment: General Provisions for Monitoring and Reporting

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[1] Total Phenols using the appropriate 4-Aminoantipyrine (4AAP) Method approved by the US Environmental Protection Agency (USEPA), currently USEPA Method 420.1.
[2] Use appropriate USEPA approved method that will quantify concentrations down to 0.0005 mg/L.
[3] Use either USEPA Method 625 or 8027.
[4] Analyze for the metals listed in Table II of Section 66261.24(a)(2)(A), Title 22, California Code of Regulations. Use appropriate USEPA approved methods with a minimum quantification limit equal to the background concentration of each metal in ground water. In no case shall the quantification limit be more than the Detection Limits for the Purposes of Reporting (DLRs). The California Department of Health Services establishes DLRs for analyses conducted on samples collected from drinking water supply systems.
[5] USEPA Method 418.1
[6] Use appropriate USEPA approved methods that will quantify concentrations down to 0.001 mg/L for hexavalent chromium and 0.0025 mg/L for total chromium.

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ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. SAMPLING AND ANALYSIS

   a. All analyses shall be performed in accordance with the current edition(s) of the following documents:

      i. Standard Methods for the Examination of Water and Wastewater

      ii. Methods for Chemical Analysis of Water and Wastes, EPA

   b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.

   c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.

   d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.

   e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.

   f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

   g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.

d. Monitoring reports shall be signed by:

i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

ii. In the case of a partnership, by a general partner;

iii. In the case of a sole proprietorship, by the proprietor; or

iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

e. Monitoring reports are to include the following:

i. Name and telephone number of individual who can answer questions about the report.

ii. The Monitoring and Reporting Program Number.

iii. WDID Number.

f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation under Section 13268 of the Water Code.