

Sanitation District Nos. 14 and 20 of Los Angeles County
Recycled Water Users Handbook

TAB 4

Districts' Lahontan Regional
Water Quality Control Board
Water Recycling Permits:

Board Order No. R6V-2006-009,
Master Water Recycling Requirements,
Los Angeles County Sanitation District No. 14 (Lancaster),
Disinfected Tertiary Recycled Water

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6V-2006-0009
WDID NO. 6B190501001

**MASTER WATER RECYCLING REQUIREMENTS
LOS ANGELES COUNTY SANITATION DISTRICT NO. 14 (LANCASTER)
DISINFECTED TERTIARY RECYCLED WATER**

Los Angeles County

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

1. Recycled Water Report

The Los Angeles County Sanitation District No. 14 (District) has filed an application with the Lahontan Water Board under Water Code section 13522.5. Pursuant to Water Code section 13523.1, the District's application requests the Lahontan Water Board to issue Master Water Recycling Requirements to the District for supply of disinfected tertiary recycled water as defined in California Code of Regulations, title 22, section 60301.230. The District submitted information on February 2, 2006 that completed the application. The documents that constitute the complete application under Water Code section 13522.5 are listed in Attachment E (References).

2. Current Board Orders

a. Waste Discharge Requirements

Board Order No. R6V-2002-053 and its amendment, Board Order No. R6V-2002-053A1, adopted on September 11, 2002 and July 13, 2005, respectively, include effluent limits and monitoring requirements for the District's existing primary, secondary, and tertiary treatment facilities located at the District's treatment plant site as shown in Attachments A through C of this Order.

b. Waste Discharge and Water Recycling Requirements (Secondary Treatment)

The District's treatment facilities produce un-disinfected and disinfected secondary recycled water that is supplied to Nebeker Ranch and discharged to Piute Ponds, respectively. Requirements for the discharge at Nebeker Ranch are prescribed by the Lahontan Water Board in Board Order No. 6-85-35, which was adopted on April 11, 1985. Requirements for the discharge at Piute Ponds are contained in Board Order No. R6V-2002-053 and its amendment.

c. Waste Discharge and Water Recycling Requirements (Tertiary Treatment)

The District's existing tertiary treatment plant has a treatment capacity of 0.5 million gallons per day (0.5 mgd). From 1972 to the present, the existing 0.5 mgd tertiary treatment plant has generated recycled water that is used at Apollo Lakes Regional County Park (Apollo Park) and the General W.J. Fox Airfield (Fox

Airfield). Requirements for these uses are prescribed by the Lahontan Water Board in Board Order No. 6-86-58, which was adopted on May 15, 1986. The District also uses the disinfected tertiary recycled water to irrigate a greenbelt at its treatment plant site and for soil compaction and dust control as described, below.

d. Conditional Waiver

On July 13, 2005, the Lahontan Water Board adopted Conditional Waiver No. R6V-2005-0018 for use of the District's disinfected tertiary recycled water and disinfected secondary recycled water for compaction and dust control during specific construction projects.

3. Reason for Action

The District is proposing to supply disinfected tertiary recycled water (hereinafter, recycled water) to additional users. Recycled water will be supplied to the proposed Division Street Corridor Recycled Water Project (Division Street Project) for use in landscape irrigation, dust control, and soil compaction. The total estimated water demand for these uses is 1090 acre-feet per year (0.974 million gallons per day). This Order includes master water recycling requirements, including a requirement that the District regulate the distributor and users of the recycled water to ensure compliance with water recycling requirements contained in State of California laws and regulations.

4. Sources of Recycled Water

The District produces recycled water at its existing 0.5 mgd tertiary treatment plant, located at the District's Lancaster facilities. The District is also proposing to construct a new 1.0 mgd pilot tertiary treatment plant at its Lancaster facilities in the future. The source of recycled water will be disinfected tertiary treated water from the District's Lancaster facilities.

5. Producer, Distributor and Users

Under this Order, the District is the producer of recycled water, and the City of Lancaster is both a distributor and one of the users of the recycled water. Other users will include other governmental agencies and private parties.

6. Recycled Water Distribution System

The City of Lancaster proposes to construct a large diameter force-main pipeline for transporting recycled water along Division Street (Division Street Pipeline) and steel tanks for storage of recycled water and supplemental water. Supplemental water will be supplied by existing water supply well No. 4-15, which is owned by the Los Angeles County Water Works District No. 40. The Division Street Pipeline will connect to the District's existing force-main pipeline, which is located along Avenue E. A lateral pipeline will be constructed for each individual user of recycled water once the site is ready to receive the recycled water.

7. Permit Area

This Order authorizes use of recycled water at sites located within a 12.5 square-mile area (Permit Area). The Permit Area is located in the Lancaster area and is bounded by the following roads: Avenue J (to the south), 10th Street West (to the west), 15th Street East (to the east), and Avenue E (to the north). Division Street passes through the Permit Area.

8. Authorized Recycled Water Uses

This Order authorizes recycled water use for dust control and soil compaction, and irrigation of landscape. The types of sites where recycled water will be used for dust control and soil compaction include construction sites, roadside areas, and the existing Lancaster landfill. Recycled water will be used for landscape irrigation at sites such as: parks, schools, cemeteries, and greenbelts. This Order does not authorize use of recycled water in "dual plumbed systems" as defined in California Code of Regulations, title 22, section 60301.250. A "dual plumbed system" includes a system, which: (a) serves a single residence; (b) has separate piping for conveying potable water and recycled water; and (c) conveys the recycled water to irrigate landscape at the residence.

9. Authorized Recycled Water Use Sites

The sites authorized for use of recycled water under this Order (Authorized Recycled Water Use Sites) are those:

- a. Located within the Permit Area described in Finding No. 7, above,
- b. Where the use is limited to those described in Finding No. 8, above, and
- c. Where the requirements described in Provisions No. II.A.2 and II.A.4 of this Order have been met.

10. Topography

The Permit Area is located southwest of Rosamond Dry Lakebed and drains either in a northerly or easterly direction toward the Dry Lakebed.

11. Hydrogeology

Unconsolidated alluvial deposits consisting of inter-bedded gravel, sand, silt and clay underlie the Permit Area. An extensive layer of lacustrine deposits is located at a depth of approximately 500 feet. Its depth and thickness varies.

Groundwater underlying the Permit Area occurs in an upper unconfined aquifer (principal aquifer) and a lower aquifer. Historically, the lacustrine deposits have been used to define the boundary between the two aquifers. The lower aquifer is generally considered to be confined. Depth to groundwater (water table for the principal unconfined aquifer) ranges from approximately 130 to 250 feet below ground surface. The direction and slope of the groundwater gradient varies depending on the location within the Permit Area. There is

also groundwater located in a shallow perched aquifer located above the principal aquifer. The volume of groundwater located in this aquifer, however, is small in comparison to the volume in the other two aquifers.

12. Groundwater Quality

Groundwater underlying the Permit Area often contains high concentrations of arsenic, and hexavalent and total chromium. (See Column No. 3 and 4, Table No. 1). The concentrations of arsenic in groundwater underlying the permit area vary with depth. The principal aquifer has lower arsenic concentrations than concentrations found in groundwater at greater depths. An example of the quality of groundwater in the permit area for a well with screened intervals located only in the principal aquifer is given in Column No. 3. An example of water quality for several wells that include screened intervals located at greater depths is given in Column No. 4. (USGS, 2005, Oct), (USGS, 2006, Jan.) (LAWWD40, 2006, Feb.), (City of Lancaster, 2006, Jan), (USGS, 2006, Jan.)

**Table No. 1
 Quality of Groundwater**

1	2	3	4
	Maximum Contaminant Level (MCL)	Data from one well screened in the principal aquifer ¹	Data from wells with screened intervals that include the lower aquifer
Nitrate (mg/L as N)	10	<0.5	<0.2 to 2.55
Total Dissolved Solids (mg/L)	500 - 1500	174	150 to 400
Arsenic (ug/L)	10	2 to 5.0	13.0 to 60.3
Total Chromium (ug/L)	50	21.0	<10 to 60
Hexavalent Chromium (ug/L)	Not Established	11.5 to 14.6	<1.0 to 20

13. Receiving Waters

The receiving waters are the groundwaters of the Antelope Hydrologic Unit.

14. Lahontan Basin Plan

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

¹ This is existing water supply well No. 4-15, owned by the Los Angeles County Water Works District No. 40 and the source of supplemental water for the Division Street Project.

15. Beneficial Uses – Groundwater

The beneficial uses of the groundwaters of the Antelope 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); and
- d. Freshwater Replenishment (FRSH).

16. Regulation of Recycled Water

a. Engineering Reports

As required under California Code of Regulations, title 22, section 60323, the District has submitted an engineering report dated December 27, 2005 for production of recycled water at its existing 0.5 mgd tertiary treatment plant. (*LACSD14, 2005, Dec.*) On November 3, 2005, the City of Lancaster submitted an engineering report dated for distribution and use of recycled water in the Permit Area. (*City of Lancaster, 2005, Nov.*) The District and City submitted the engineering reports to the Lahontan Water Board and State Department of Health Services.

Before the District can supply recycled water to the Permit Area from its proposed 1.0 mgd pilot tertiary treatment plant, the District must obtain waste discharge requirements for the plant.

b. Regulation

Water Code section 13523, subdivision (a) states that:

Each Regional Board after consulting with and receiving the recommendations of the State Department of Health Services and any party who has requested in writing to be consulted, and after any necessary hearing, shall, if in the judgement of the board, it is necessary to protect the public health, safety, or welfare, prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water.

This Order includes water-recycling requirements. It requires the District:

- i. Comply with Uniform Statewide Reclamation Criteria (California Code of Regulations, title 22, sections 60301 through 60355) established pursuant to Water Code section 13521;
- ii. Establish and enforce *Requirements for Recycled Water Users*, which govern the design and construction of facilities located at use sites and the use of recycled water at those sites;
- iii. Conduct periodic inspections of recycled water use sites to monitor compliance by users with the Uniform Statewide Reclamation Criteria

established pursuant to Water Code section 13521 and the requirements of this Order; and .

- iv. Submit quarterly reports that include the results of the District's compliance monitoring and the information required by Water Code section 13521.

Provisions No. II.A and II.B of this Order require the District demonstrate there will be compliance with recycled water use requirements before supplying recycled water to a user, including recycled water use requirements contained in this Order and in all applicable laws and regulations.

17. Environmental Analysis

The City of Lancaster completed an environmental analysis for the project. The analysis concludes that the project is not expected to result in significant increased nitrate (nitrogen) concentrations in groundwater. The analysis concludes that there may be increases in total dissolved concentrations in underlying groundwater; however, these increases would not be significantly different than those resulting from irrigation with existing sources. The project will provide water supply benefits (to both local and Statewide water users) through the use of recycled water in lieu of existing potable water sources. The implementation of the mitigation measures included in the initial study (described below) constitute the best practical means of minimizing potential impacts to the groundwater quality because these measures will minimize over-application of recycled water and fertilizer use. The project provides the best and most reasonable means of ensuring that existing potable water sources are put to their best and highest use while still maintaining the water quality of the groundwater such that beneficial uses are being preserved to an extent that is reasonable.

18. California Environmental Quality Act Compliance (CEQA)

The City of Lancaster (City) prepared an Initial Study dated November 30, 2005 for the Project and adopted a negative declaration on February 14, 2006.

The Initial Study found that no significant impacts will occur as a result of the project. Mitigation measures that will be implemented as part of the project include best management practices (BMPs) to ensure:

- a. Application of recycled water at agronomic rates so irrigation does not promote downward migration of salts (including nitrates), which could adversely impact the quality of groundwater,
- b. There is adequate erosion control so soil is not released into stormwater runoff and surface waters, and
- c. Fertilizer application does not adversely impact waters of the State.

The Regional Board is requiring implementation of the above mitigation measures through the Provisions of this Order. Provision No. II.A.1 of this Order requires that, the District establish *Requirements for Recycled Water Users* that require implementation of the above mitigation measures. Through Recycled Water Specifications No. I.A.2 of this

Order, the District is required to enforce compliance with the mitigation measures. The attached monitoring and reporting program includes requirements for the District to monitor and report compliance with the mitigation measures.

19. Notification of Interested Parties

The Lahontan Water Board has notified the District and interested persons of its intent to prescribe master recycling requirements.

20. Consideration of Public Comments

The Lahontan Water Board, in a public meeting, heard and considered all comments pertaining to the use of recycled water.

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

I. WATER RECYCLING SPECIFICATIONS

A. Regulation and Enforcement

1. Pursuant to Water code section 13523.1, subdivision (b)(2), the District shall comply with the Uniform Statewide Reclamation Criteria, which are contained in California Code of Regulations, title 22, sections 60301 through 60355 and are established pursuant to Water Code section 13521.
2. Pursuant to Water Code section 13523.1, subdivision (b)(3), the District shall establish *Requirements for Recycled Water Users* governing the design and construction of recycled water use facilities and the use of recycled water, in accordance with the Uniform Statewide Reclamation Criteria.
3. The District shall establish a *Compliance Inspection and Enforcement Program* describing its programs for conducting periodic inspections required under Water Code section 13523.1, subdivision (b)(5) and its enforcement program to address user violations of the Uniform Statewide Reclamation Criteria and the District's *Requirements for Recycled Water Users*.
4. Pursuant to Water Code section 13523.1, subdivisions (b)(3) and (b)(5), the District shall conduct periodic inspections of the facilities of the recycled water users to monitor compliance by the users with the Uniform Statewide Reclamation Criteria and the District's *Requirements for Recycled Water Users*. During the inspections, the District shall also monitor compliance with Water Recycling Specifications No. I.B.1 through I.B.14 of this Order.

5. Pursuant to Water Code section 13523.1, subdivision (b)(3), the District shall enforce the Uniform Statewide Reclamation Criteria and the District's *Requirements for Recycled Water Users*.
6. The District shall not supply recycled water to parties who distribute, store or use recycled water in a manner that is in violation of the Uniform Statewide Reclamation Criteria and the requirements of the Master Recycling Requirements.

B. General Requirements and Prohibitions

1. The use of recycled water shall not cause a pollution as defined in Water Code section 13050 of the California Water Code, or a threatened pollution.
2. Neither the treatment of wastewater nor the use of recycled water shall cause a nuisance as defined in Water Code section 13050.
3. The use of recycled water under this Order shall be limited to the Authorized Recycled Water Use Sites defined in Finding No. 9 of this Order.
4. The uses of recycled water authorized under this Order are limited to those described in Finding No. 8 of this Order.
5. The source of recycled water shall be limited to those described in Finding No. 4 of this Order.
6. Recycled water used to irrigate landscape areas shall be applied at a rate and amount that does not exceed the needs of the vegetation.
7. Recycled water shall be applied at a rate and amount that does not cause ponding or runoff.
8. Pipelines shall be maintained so as to prevent leakage.
9. The discharge of recycled water, which causes violation of any narrative water quality objective (WQO) contained in the Basin Plan, is prohibited.
10. The discharge of recycled water, which causes violation of any numeric WQO contained in the Basin Plan, is prohibited.
11. Where any numeric or narrative WQO contained in the Basin Plan is already being violated, the discharge of recycled water, which causes further degradation or pollution, is prohibited.

12. All facilities used to transport and store recycled water shall be adequately protected against overflow, structural damage, or a significant reduction in efficiency resulting from a 100-year, 24-hour storm or flood.

II. PROVISIONS

- A. Before supplying recycled water under this Order, the District shall:
 1. Complete and submit a report to the Lahontan Water Board containing its proposed *Requirements for Recycled Water Users*, and its *Compliance Inspection and Enforcement Program* required under Recycled Water Specifications No. I.A.2 and I.A.3, above, and obtain acceptance of the report from the Lahontan Water Board Executive Officer. For the report to be accepted it must include the elements listed in Attachment D and comply with the Uniform Reclamation Criteria. The *Requirements for Recycled Water Users* and compliance Inspection and Enforcement Program shall include all elements in Attachment D of this Order.
 2. Submit to the Lahontan Water Board a copy of the final engineering report for the Division Street Recycled Water Distribution System.
 3. Submit to the Lahontan Water Board a copy of the final engineering report for the 0.5 mgd tertiary treatment plant.
 4. Submit to the Lahontan Water Board a copy of the final engineering report for the 1.0 mgd tertiary treatment plant.
 5. Obtain Waste Discharge Requirements for the discharge from the 1.0 mgd tertiary treatment plant, prior to supplying recycled water from the 1.0 mgd tertiary plant.
 6. Have received, reviewed and approved a completed *Report of Proposed Recycled Water Use*, which contains information demonstrating the user will comply with the Uniform Statewide Reclamation Criteria and the District's *Requirements for Recycled Water Users*. Copies of all approved *Reports of Proposed Recycled Water Use* and approval letters shall be maintained on file by the District.
- B. Pursuant to California Code of Regulations, title 22, section 60316, subdivision (b), the District shall notify the Lahontan Water Board, State Department of Health Services and County of Los Angeles Department of Health Services of any incidence of backflow from a recycled water system into the potable water system within 24 hours of discovery of the incident.
- C. Pursuant to Water Code section 13267, subdivision (b), the District shall comply with the Monitoring and Reporting Program R6V-2006-0009 as specified by the Executive Officer.

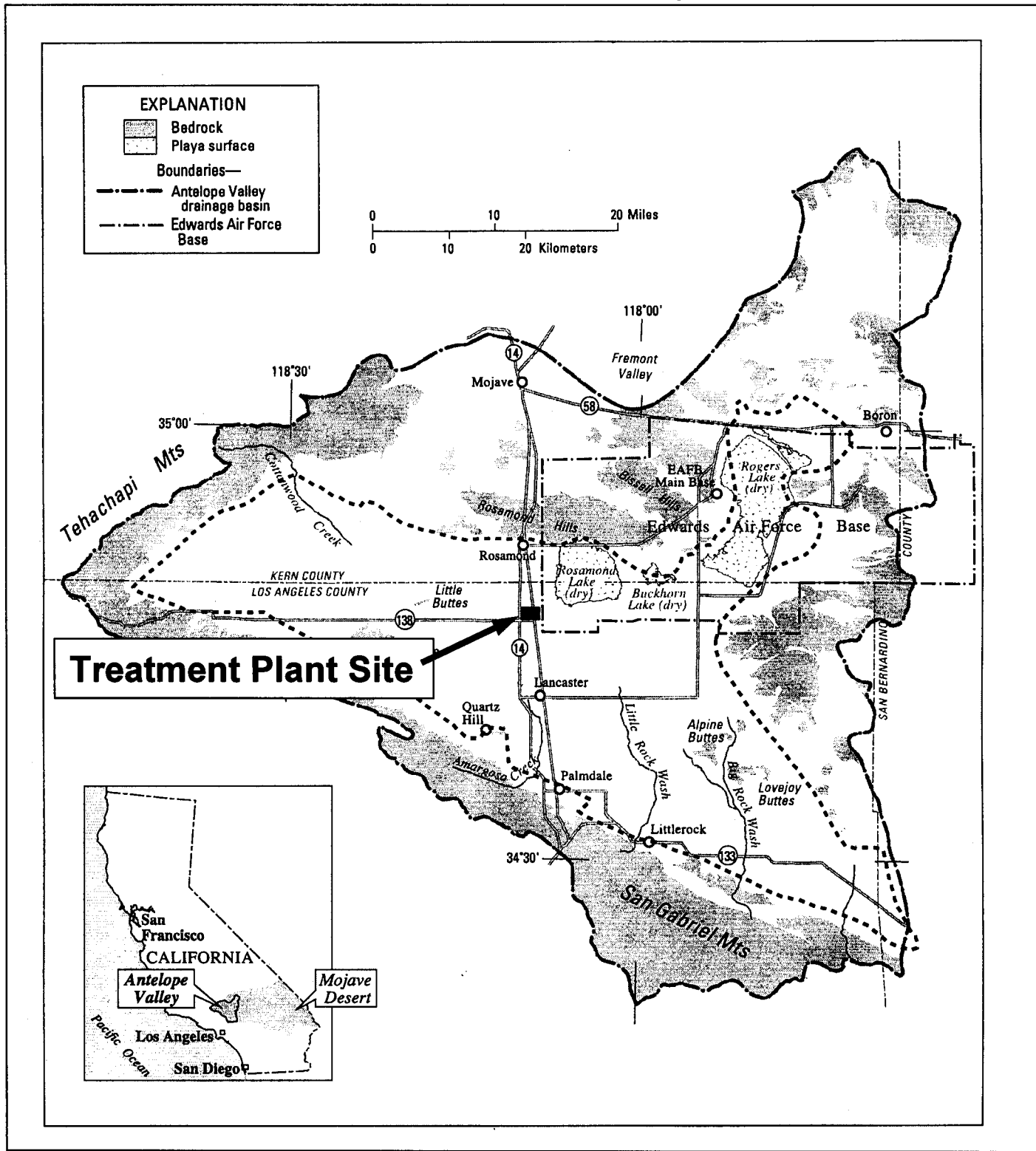
I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on March 8, 2006.



HAROLD J. SINGER
EXECUTIVE OFFICER

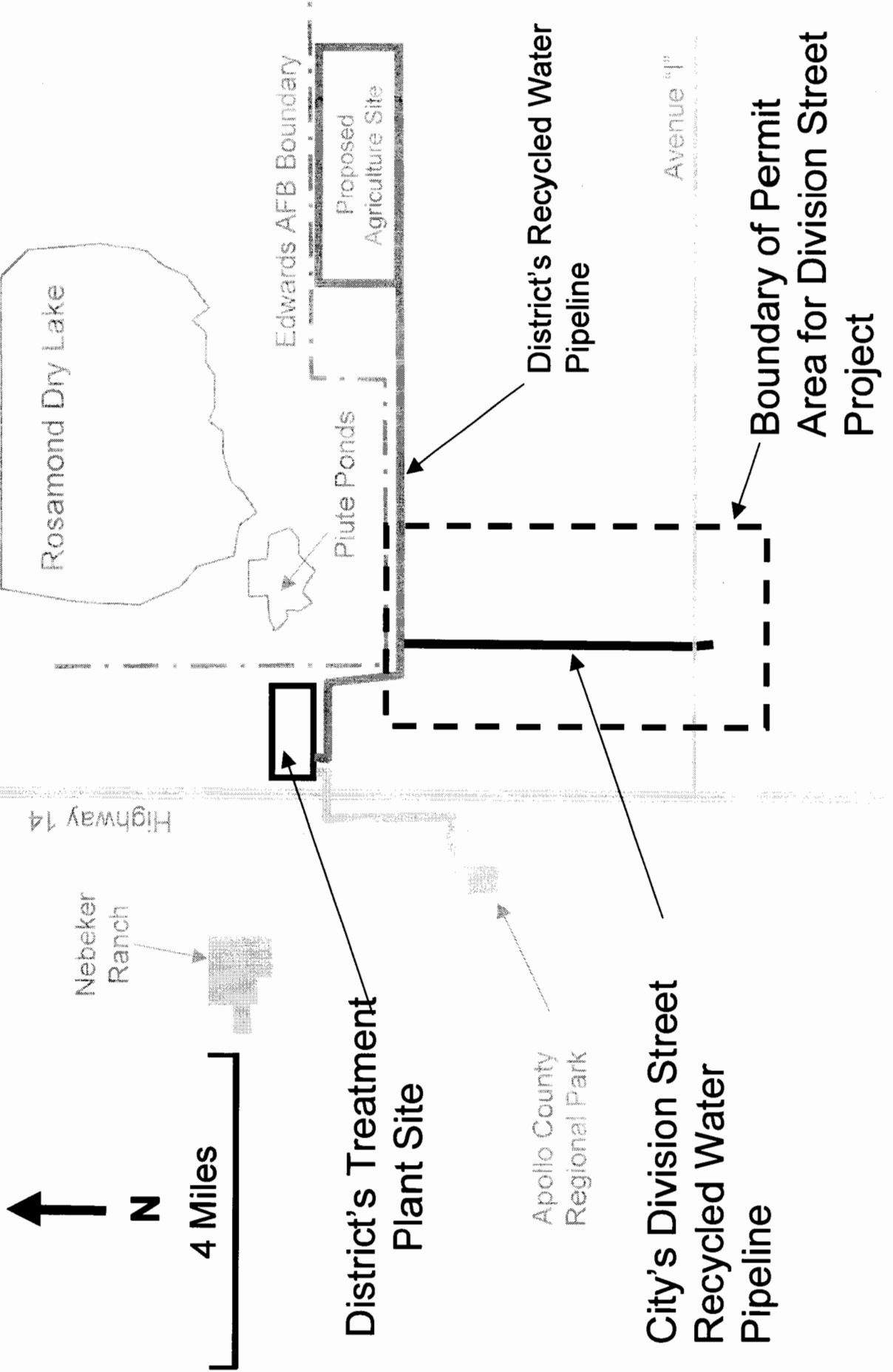
- Attachments:
- A. Location Map
 - B. Permit Area
 - C. Wastewater Treatment Plant Site Plan
 - D. Requirements For Recycled Water Users
 - E. References
 - F. Standard Provisions for Waste Discharge Requirements

ATTACHMENT A General Location Map



Modified from Figure 1, *Simulation of Groundwater Flow and Land Subsidence, Antelope Valley Ground-Water Basin*, USGS, 2003

Attachment B Division Street Recycled Water Project



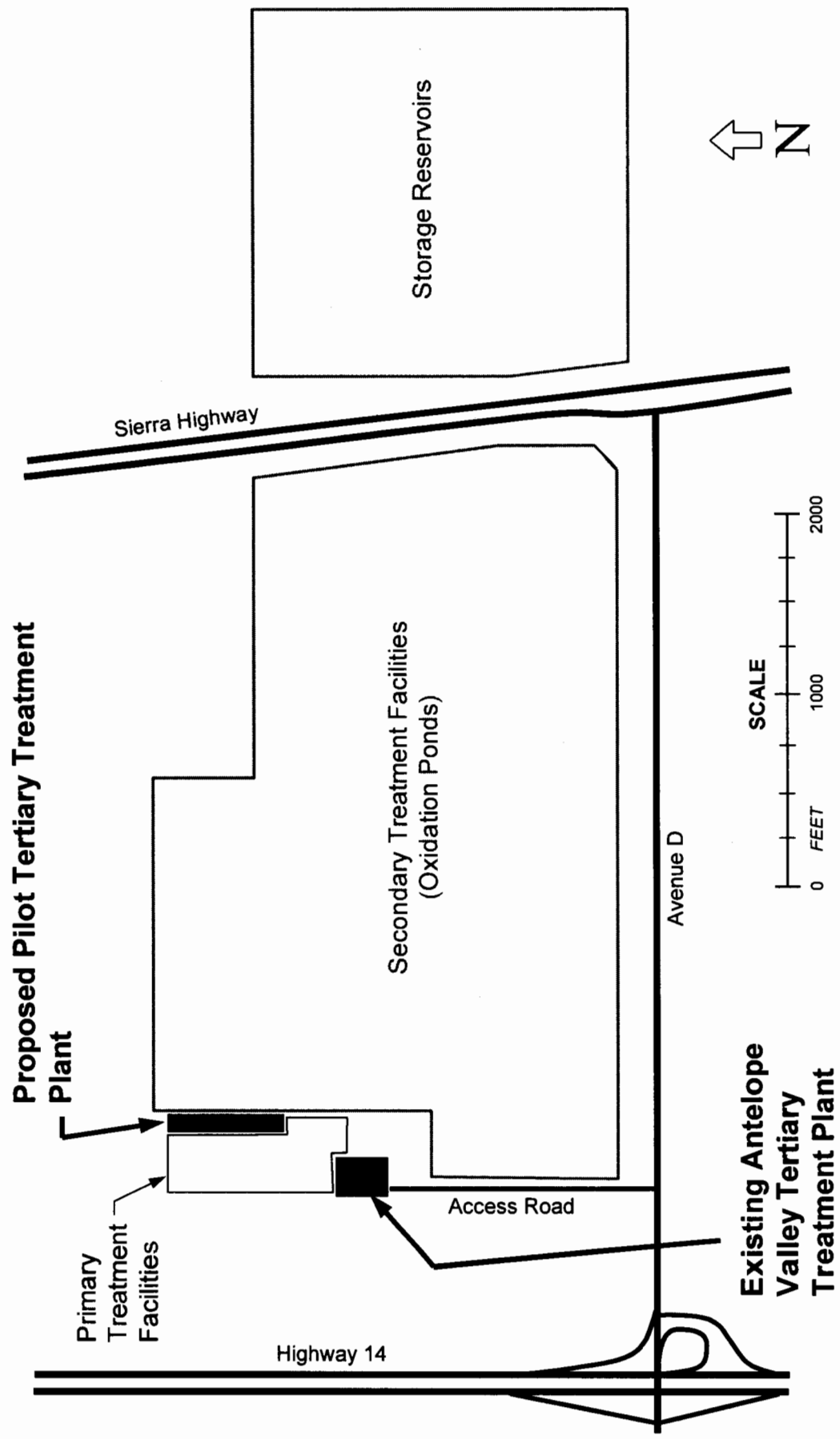
District's Treatment Plant Site

City's Division Street Recycled Water Pipeline

District's Recycled Water Pipeline

Boundary of Permit Area for Division Street Project

ATTACHMENT C Treatment Plant Site



ATTACHMENT D

I. Requirements for Recycled Water Users

- A. The attached Order requires the Los Angeles County Sanitation District No. 14 (District) establish and enforce *Requirements for Recycled Water Users*. The *Requirements for Recycled Water Users* shall include but not be limited to a description of the:
1. Process the Users must follow to obtain permission to use recycled water, including the agencies involved in the process, documents that must be completed (design plans, User Agreements, etc.), the routing of documents among the agencies, agencies that must approve documents, agencies responsible for construction inspections, etc.
 2. Requirements for the operational phase, including the designation of the Site Supervisor, and requirements for personnel training, operation and maintenance, type and frequency of cross-connection tests, etc.
- B. The *Requirements for Recycled Water Users* shall comply with the following laws and regulations:
1. Applicable portions of the Water Code, including Water Code section 13523.1;
 2. Applicable portions of the Health and Safety Code;
 3. California Code of Regulations, Title 22, Division 4, Chapter 3, Uniform Statewide Reclamation Criteria; and
 4. California Code of Regulations, Title 17, Division 1, Chapter 5, Group 4, Article 1 & 2.
- C. The *Requirements for Recycled Water Users* shall be consistent with the following documents:
1. The document titled: *Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water*, State Department of Health Services;
 2. Any measures that are deemed necessary for protection of public health, such as the American Water Works Association (AWWA) California/Nevada section, *Guidelines for the Distribution of Non-Potable Water and Guidelines for Retrofitting To Recycled Water* or alternate measures that are acceptable to the State Department of Health Services.
 3. Relevant user manuals such as the Los Angeles County Recycled Water Advisory Committee's, 2005, *Recycled Water User Manual* (Manual).

- D. At a minimum, the District's *Requirements for Recycled Water Users* shall include the following requirements:
1. Before use of recycled water can begin at a proposed Authorized Recycled Water Use Site (Site), a User must file an application with the District and a User Agreement must be completed. The User Agreement shall include the District's terms and conditions for the use of recycled water by a User. The application shall include:
 - i. A detailed description of the proposed recycled water use Site, including:
 - (A). A map showing the specific boundaries of the proposed Site;
 - (B). The person or persons responsible for operation and maintenance of the Site (O&M Staff), including the person designated as the Site Supervisor as defined in Requirement No. I.D.3 of this attachment;
 - (C). Evidence that the O&M Staff and Site Supervisor have received sufficient training to comply with Requirement No. I.D.4 of this attachment; and
 - (D). The specific use to be made of the recycled water at each Site.
 - ii. Design plans and a description of BMPs that show that the quality of waters of the State will be protected and there will be compliance with Requirement No. I.D.5 of this attachment.
 - iii. Plans and specifications describing the following:
 - (A). Proposed piping systems to be used;
 - (B). Pipe locations for both recycled and potable systems;
 - (C). Type and location of the outlets and plumbing fixtures that will be accessible to the public; and
 - (D). The methods and devices to be used to prevent backflow of recycled water into the public water system.
 - iv. Recycled Water System Operations Manual, and
 - v. Emergency Cross-Connection Response Plan
 2. The Site Supervisor shall immediately initiate corrective action to eliminate violation of any applicable law or regulation, or the District's *Requirements for Recycled Water Users*.
 3. Each User shall designate a Site Supervisor who is responsible for the recycled water system at each Site under the User's control. Specific responsibilities of the Site Supervisor include the proper installation, operation, and maintenance of the recycled water system; compliance with the District's *Requirements for Recycled Water Users*, prevention of potential hazards and preservation of the recycled water system in "as built" form.

4. The O&M Staff and the Site Supervisor shall be trained ensure the Site is operated and maintained in compliance with applicable laws and regulations, and the District's *Requirements for Recycled Water Users*.
5. Users shall allow an authorized representative of any of the following agencies the right to enter and inspect the use Site upon presentation of proper credentials: the District, Lahontan Water Board, State Department of Health Services or County of Los Angeles Department of Health Services.
6. Sites using recycled water shall be designed and operated using BMPs to ensure:
 - i. Application of recycled water at agronomic rates so irrigation does not promote downward migration of salts (including nitrates), which could adversely impact the quality of groundwater;
 - ii. A adequate erosion control so that soil is not released into stormwater runoff and surface waters; and
 - iii. Fertilizer application does not adversely impact waters of the State.

To demonstrate whether irrigation is at agronomic rates, the User shall provide information to the District including a tabular comparison of the volume of water required for plant growth in the landscape area to the volume of recycled water (and supplemental water) applied to the area.

To demonstrate whether fertilizer application is at agronomic rates, the User shall provide information to the District including a tabular comparison of the amount of fertilizer needed for plant growth in the landscape area to the amount applied to the area. The Site Supervisor shall only apply nitrogen fertilizer if levels of nitrogen in the recycled water are not sufficient for plant growth. If levels are not sufficient, the Site Supervisor shall calculate how much fertilizer needs to be applied by subtracting the level in recycled water from the level needed for plant growth.

7. Sites using recycled water shall be designed and operated using BMPs with the objectives of preventing recycled water spray, mist, or surface flow from either leaving the Site or leaving the Site and reaching:
 - i. Any perennial surface waters located adjacent to the Site,
 - ii. Areas where the public has access (e.g., dwellings, designated outdoor eating areas, or food handling facilities.); or
 - iii. Drinking fountains.
8. BMPs used to achieve the objectives described in Requirement No. I.D.7 of this attachment, shall include:
 - i. Use of buffer zones;
 - ii. Discontinuation of application of Recycled Water during precipitation events, which are of sufficient magnitude to generate surface flow within the Site; and
 - iii. Use of devices that protect drinking water fountains against contact with recycled water spray, mist, or surface flow.

9. Sites shall be designed and operated using BMPs with the objectives of preventing public contact with recycled Water. BMPs used to obtain this objectives shall include: irrigation with recycled water during periods of minimal human use of the irrigated area and timing of irrigation to allow an adequate dry-out time before the irrigated area will be used by the public.
10. A copy of the *Requirements for Recycled Water Users*, design plans for the recycled water system and potable water system, and the Recycled Water System Operations Manual for the recycled water system be maintained at the use area. These documents shall be available to operating personnel at all times.
11. The Site Supervisor shall provide immediate verbal notification followed by written notification within 10 business days to the District, Lahontan Water Board, State Department of Health Services and County of Los Angeles Department of Health Services if any of the following events occur:
 - i. There is a complaint (or other source of information) concerning recycled water use that may involve illness;
 - ii. An unauthorized discharge of more than 50,000 gallons of tertiary treated recycled water (or 1,000 gallons for any lesser quality recycled water); or
 - iii. Contamination of the potable water system due to a cross-connection.
12. The Site Supervisor shall immediately invoke the Emergency Cross-Connection Response Plan in case of contamination of the potable water system due to a cross-connection.
13. Irrigation with disinfected tertiary recycled water shall not take place within 50 feet of any domestic water supply well. (Cal Code Regs., tit, 22, section 60310, subd. (a).)
14. Impoundment of disinfected tertiary recycled water shall not occur within 100 feet of any domestic water supply well. (Cal Code Regs., tit, 22, section 60310, subd. (a).)
15. A public water supply shall not be used as a backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of California Code of Regulations, title 17, section 7602, subdivision (a) and California Code of Regulations, title 17, section 7603, subdivision (a), and that such connection has been approved by the State Department of Health Services and/or its delegated local agency.
16. Any backflow prevention device installed to protect the public water system shall be inspected and maintained in accordance with California Code of Regulations, title 17, section 7605 (Cal. Code Regs., tit. 22, section 60316, subd. (c)).
17. Except as allowed under California Code of Regulations, title 17, section 7604, no physical connection shall be made or allowed to exist between any recycled water system and potable water system. (Cal. Code Regs., tit. 22, section 60310, subd. (h).)

18. The recycled water system shall not include any hose bibs. Quick couplers that are different from that used on the potable water system may be used. (Cal Code of Regs., tit. 22, section 60310, subd. (i).)
19. All recycled water piping and appurtenances in new installations and appurtenances in retrofit installations shall be colored purple or distinctively wrapped with purple tape in accordance with Health and Safety Code section 116815.
20. Sites shall be designed and operated using BMPs to prevent: direct human consumption of recycled water, or use of recycled water for processing of food or drink intended for human consumption. There shall be posting with conspicuous signs (in a size no less than 4 inches high by 8 inches wide) that include the following wording: "RECYCLED WATER - DO NOT DRINK" where recycled water could potentially be accessed for human consumption. Each sign shall display an international symbol similar to that shown in Figure 60310-A of California Code of Regulations, title 22, section 60310, subdivision (g). The sign(s) shall be of a size easily readable by the public. The prescribed wording should also be translated into Spanish and other appropriate languages and included in the required signs. Cal Code Regs., tit. 22, section 60310, subd, (g).)

II. Compliance Inspection and Enforcement Program

- A. The attached Order requires the District to establish and implement a *Compliance Inspection and Enforcement Program*. The *Compliance Inspection and Enforcement Program* shall include but not be limited to a description of the District's:
 1. Plan for conducting routine compliance inspections of the Authorized Recycled Water Use Sites, including the name(s) of any agencies that will assist the District in conducting the inspections.
 2. Process for responding to violations, including requesting corrective action and initiating enforcement action.
- B. At a minimum, the *Compliance Inspection and Enforcement Program* shall be consistent with Water Code section 13523.1.
- C. At a minimum, the District's *Compliance Inspection and Enforcement Program* shall include the following requirements:
 1. Inspections include review of the Site Supervisor's maintenance records and visual inspection of all back-flow prevention devices, pump rooms, exposed piping, valves, pressure reducing stations, points of connection, sprinklers, controllers, lakes, storage facilities, signs, labeling, tags, etc.;
 2. A Site compliance inspection report be prepared for each inspection. The inspection report shall be signed and dated by both the Site Supervisor and the inspector. At a minimum, copies of the reports shall be maintained on file by the Site Supervisor, District, and inspecting entity if different from the District;

3. The inspector immediately notify the Site Supervisor of violation(s) identified during inspections and what corrective actions must be taken;
4. Describe enforcement actions that will be employed for Users that fail to immediately initiate corrective action to eliminate violation(s). Such enforcement actions may consist of:
 - a. Immediately stopping recycled water service to a use Site where a violation has been identified and the violation is believed to constitute a hazard to the public health or threat to water quality.
 - b. Termination of service to a User who uses, transports, or stores such water in violation of the District's *Requirements for Recycled Water Users*.

Attachment E
References

Los Angeles County Sanitation District No. 14 (District)
Master Recycling Requirements

1. Lancaster (City of), 2005, *City of Lancaster, Division Street Corridor Recycled Water Project, Title 22 Engineering Report*, Prepared by RMC Water and Environment, November 3. (*City of Lancaster, 2005, Nov.*)
2. Lancaster (City of), 2006, *Recycled Water Facilities and Operations Master Plan City of Lancaster, CA*, Prepared by RMC Water and Environment, January (*City of Lancaster, 2006, Jan.*)
3. Lancaster (City of), *Final Initial Study and Mitigated Negative Declaration Division Street Corridor Recycled Water Project City of Lancaster, CA SCH Number 2005111134* Prepared by RMC Water and Environment, February (*City of Lancaster, 2006, Feb.*)
4. Los Angeles County Recycled Water Advisory Committee, *Recycled Water User's Manual*, 2005. (*LARWAC, 2005*)
5. Los Angeles County Sanitation District No. 14, 2004, *Lancaster Water Reclamation Plant 2020 Facilities Plan (Final)*, May.
6. Los Angeles County Sanitation District No. 14, 2004, *Lancaster Water Reclamation Plant 2020 Facilities Plan Final Environmental Impact Report*, May.
7. Los Angeles County Sanitation District No. 14, 2005, District's cover letter to Regional Board office transmitting information including a completed application (Form 200), January 14.
8. Los Angeles County Sanitation District No. 14, 2005, 2004 Annual Self-Monitoring Report March 28. (*LACSD14, 2005, Mar.*)
9. Los Angeles County Sanitation District No. 14, 2005, District's letter to Regional Board office describing the proposed 1.0 mgd MBR/UV tertiary treatment plant, July 22.
10. Los Angeles County Sanitation District No. 14, 2005, District's letter to Regional Board office describing proposed uses of disinfected tertiary recycled water, August 4.
11. Los Angeles County Sanitation District No. 14, 2005, Letter from the District to the State Department of Health Services, August 8.

12. Los Angeles County Sanitation District No. 14, 2005, *Lancaster Wastewater Reclamation Plant Effluent Reuse Expansion – Phase IV Engineering Report*, December 27. (LACSD14, 2005, Dec.)
13. Los Angeles County Sanitation District No. 14, 2006, E-mail from District to Regional Board's Victorville Office, February 2. (LACSD14, 2006, Feb.)
14. Los Angeles County Waterworks District No. 40, 2005, *Antelope Valley Recycled Water Project, Draft Facilities Planning Report*, prepared by Kennedy/Jenks Consultants, September 19. (LAWWD40, 2005, Sep.)
15. Los Angeles County Waterworks District No. 40 (LAWWD40), 2006, E-mail from LAWWD40 staff to Regional Board's Victorville Office, February 8. (LAWWD40, 2006, Feb.)
16. Metcalf and Eddy, 2003, *Wastewater Engineering Treatment and Reuse, Fourth Edition*, Published by McGraw-Hill. (Metcalf and Eddy, 2003)
17. U.S. Geological Survey, Information on website updated on October 13, 2005 (USGS, 2005, Oct)
18. U.S. Geological Service, 2006, Database on U.S. Geological Service website, Jan. (USGS, 2006, Jan)

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-2006-0009
WDID NO. 6B190501001

MASTER WATER RECYCLING REQUIREMENTS
LOS ANGELES COUNTY SANITATION DISTRICT NO. 14 (LANCASTER)
DISINFECTED TERTIARY RECYCLED WATER

Los Angeles County

I. MONITORING

A. Flow

Each month, the total volume, in million gallons, and the average flow rate, in million gallons per day (mgd), shall be recorded for Recycled Water and groundwater supplied to the Division Street Corridor Recycled Water System:

1. The Recycled Water supplied from the existing 0.5 mgd tertiary treatment plant to the Recycled Water System,
2. The Recycled Water supplied from the proposed 1.0 mgd pilot tertiary treatment plant to the Recycled Water System, and
3. The groundwater supplied from Water Supply Well No. 4-15 to the Recycled Water System.

B. Application Rates for Fertilizers and Recycled Water

1. To demonstrate whether irrigation is at agronomic rates, include a tabular comparison of the:
 - a. Volume of water required for plant growth in each landscape area;
 - b. The volume of recycled water (and supplemental water) applied to each area; and
 - c. The number of acres for each area.
2. To demonstrate whether nitrogen fertilizer application is at agronomic rates, include a tabular comparison of the:
 - a. Amount of nitrogen (N) needed for plant growth in each landscape area;
 - b. Total amount of N applied to each area, including the amount of N in the recycled water and the amount of N in any fertilizer applied; and
 - c. The number of acres for each area.

3. Report the volume of recycled water used for soil compaction/dust control at each site during the period.

C. Permitting

The following shall be recorded/prepared each quarter:

1. A list of all Authorized Recycled Water Use Sites (sites), including the following information for each site: name of site, user name, type of use, site area (acres) and date the District approved use of recycled water at the site;
2. The total number of sites that received Recycled Water during the quarter shall be recorded; and
3. A map of suitable scale showing the boundary of the Permit Area and the sites that received recycled water.

D. Compliance Inspections and Enforcement

1. A list of sites inspected during the quarter, including the following information for each site:
 - a. Date of inspection, name of site, user name and type of use;
 - b. A description of any violations noted;
 - c. The date compliance was achieved and the corrective action taken; and
 - d. A description of enforcement action taken (if any), including any schedule for achieving compliance.

II. REPORTING

A. General Provisions

The District 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. Quarterly Reports

Beginning on **September 1, 2006**, quarterly monitoring reports including the preceding information shall be submitted to the California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) by the first day of the third month following each quarterly monitoring period. (Wat. Code, § 13523.1, subd. (b)(4).)

C. Annual Report

Beginning on April 1st of each year, the District shall submit an annual report to the Lahontan Water Board with the following information:

1. Documentation of status of the District's compliance with the attached Master Water Recycling Requirements;
2. The compliance record and the corrective actions taken or planned, which may be needed to bring the District into full compliance with the Master Water Recycling Requirements; and
3. The District's time schedule for completing corrective actions needed to achieve compliance.

Ordered by: Harold J. Singer Dated: March 8, 2006
HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment: A. General Provisions for Monitoring and Reporting Program

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.

x:PROVISIONS WDRS

file: general pro mrrp