



ROWLAND WATER DISTRICT

3021 South Fullerton Road
P. O. Box 8460
Rowland Heights, CA 91748
(562) 697-1726
www.rowlandwater.com

RULES AND REGULATIONS GOVERNING RECYCLED WATER SERVICE

**These Rules & Regulations are
Subject to Periodic Revisions**

TABLE OF CONTENTS

<u>HEADING</u>	<u>PAGE</u>
SECTION 1 INTRODUCTION AND PURPOSE	
1.1 INTRODUCTION	1-1
1.2 PURPOSE	1-1
1.3 POLICY	1-1
1.4 SCOPE	1-2
1.5 SEVERABILITY	1-2
1.6 AMENDMENTS	1-2
1.7 PRECEDENCE	1-3
1.8 LIABILITY	1-3
1.9 ENFORCEMENT	1-3
1.10 PROTECTION OF PUBLIC HEALTH	1-3
1.11 SERVICE AREAS	1-4
1.12 AUTHORIZED USES	1-4
1.13 OTHER GOVERNING AUTHORITY	1-4
SECTION 2 DEFINITIONS	
SECTION 3 CUSTOMER PROVISIONS	
3.1 APPROVED USE AREAS	3-1
3.2 DESIGN APPROVAL	3-1
3.3 RECYCLED WATER SYSTEM RESPONSIBILITY	3-1
3.4 REQUESTS FOR INFORMATION	3-1
3.5 CONDITIONS OF SERVICE	3-1
3.6 CONTINGENCY RESERVATIONS	3-2
SECTION 4 PERMITTING PROCESS AND TIMELINE	
4.1 PROCEDURES FOR EXISTING POTABLE WATER SERVICE CUSTOMERS	4-1
4.2 PROCEDURES FOR NEW WATER SERVICE APPLICANTS	4-3
4.3 USE PERMIT	4-5
4.4 DESIGN AND CONSTRUCTION SUBMITTALS AND RECORDS	4-6
4.5 REPORTING	4-10
4.6 UPGRADES AND ALTERATIONS TO ON-SITE WATER SYSTEMS	4-10
4.7 REPAIRS TO ON-SITE WATER SYSTEMS	4-11
SECTION 5 TECHNICAL REQUIREMENTS FOR ON-SITE RECYCLED WATER FACILITIES	
5.1 IRRIGATION SYSTEMS	5-1
5.2 CONSTRUCTION WATER FACILITIES	5-3
5.3 NON-IRRIGATION SYSTEM FACILITIES	5-4
5.4 PROTECTIVE MEASURES	5-5
SECTION 6 CONSTRUCTION SPECIFICATIONS FOR ON-SITE RECYCLED WATER FACILITIES	
6.1 GENERAL CONDITIONS	6-1
6.2 MATERIAL SPECIFICATIONS	6-3
6.3 CONSTRUCTION METHODS	6-4
6.4 INSPECTION	6-5
6.5 REVIEW AND TESTING	6-6
6.6 RETROFITS AND CONVERSIONS	6-7
SECTION 7 OPERATIONAL REQUIREMENTS FOR ON-SITE RECYCLED WATER USE	
7.1 SPECIFIC LIMITATIONS	7-1
7.2 IRRIGATION SYSTEMS	7-3
7.3 CONSTRUCTION WATER FACILITIES	7-4
7.4 NON-IRRIGATION SYSTEM FACILITIES	7-5
7.5 TESTING AND INSPECTION	7-8
7.6 MAINTENANCE RECORDS	7-9
SECTION 8 VIOLATIONS AND PENALTIES	
8.1 DETERMINATION	8-1
8.2 VIOLATIONS	8-1
8.3 CORRECTIVE ACTION	8-1
8.4 PENALTIES PRIOR TO ISSUANCE OF THE USE PERMIT	8-1
8.5 PENALTIES AFTER ISSUANCE OF THE USE PERMIT	8-2
8.6 APPEAL	8-3
8.7 SERVICE RECONNECTION	8-3
ATTACHMENTS	
A MANDATORY CONNECTION ORDINANCE	
B CHECKLIST/ACTION REQUEST FORM	
C RECYCLED WATER SERVICE APPLICATION	
D RECYCLED WATER USE PERMIT APPLICATION	
E ON-SITE TESTING FORM	
F AGENCY CONTACTS	

SECTION 1

INTRODUCTION AND PURPOSE

1.1 INTRODUCTION

The Rowland Water District (District) has developed a Recycled Water Master plan to expand its existing recycled water distribution system to substantially expand its recycled water customer base. The ultimate recycled water system will expand the existing supply to over 2000 acre-feet per year. The District reports to the Los Angeles County Department of Health Services (LACDHS) on recycled water use within its boundaries. Determination of specific uses to be allowed shall be in accordance with the treatment standards and water quality requirements set forth in the California Code of Regulations, Title 22, Division 4, Chapter 3, sections 60301 through 60355, inclusive (Water Recycling Criteria).

1.2 PURPOSE

The purpose of the "Rules and Regulations Governing Recycled Water Service" (Rules and Regulations) is to establish standard procedures, specifications, and limitations for the safe and orderly development and operation of recycled water facilities and systems within the District's jurisdictional area. The Rules and Regulations cover the administrative, design, construction, and operational requirements, for obtaining recycled water service and the use of recycled water in on-site facilities, and aspects of the relationship between customers and the District.

1.3 POLICY

On July 12, 2005 the District's Board of Directors adopted Ordinance No. 0-7-2005 which supersedes Ordinance No. 0-9-2004, "Ordinance of the Board of Directors of the Rowland Water District Establishing Mandatory Recycled Water Connection Policy" (Mandatory Connection Ordinance). The Mandatory Connection Ordinance (see Attachment A) presents the District's policy on recycled water use and requires the adoption and upkeep of the Rules and Regulations. Among the provisions of the Mandatory Connection Ordinance is a surcharge equal to fifty percent (50%) of the potable water rate, on use of potable water for purposes for which recycled water is mandated, if recycled water is available to a prospective customer and on-site conversion or retrofit is not completed within a stipulated time period.

It is the mission of the District to focus continually on ways to improve and enhance the quality of service and reliability of water supply to our customers. In light of this mission, it is the policy of the District that recycled water shall be used within its service area wherever such use is economically justified, financially and technically feasible and is not detrimental to public health, safety, and welfare, or the environment. The District will offer recycled water that is surplus to the needs of recycled water customers within the District's service area, for such uses outside the District by agreement with the retail purveyor.

1.4 SCOPE

It is the intent of the District that recycled water be used in a manner that is in compliance with applicable Federal, State and local statutes, ordinances, regulations, and other requirements and achieve the following.

1.4.1 Promote Conservation

Achieve conservation of potable water supplies by using recycled water to the maximum extent possible for current and future landscape irrigation, agricultural irrigation and industrial process demands.

1.4.2 Prevent Human Consumption/Contact

Prevent direct human consumption of, and contact with, recycled water through:
Adherence to all applicable rules and regulations

Posting of identification signs by the customer

Cross-connection/backflow prevention and testing programs in accordance with District Ordinance No. 1-88 (Cross-Connection Control Ordinance) and Title 17 of the California Code of Regulations

Properly tagging and color coding recycled water appurtenances

1.4.3 Provide Control and Enforcement

Provide controls over the use of the recycled water system to prevent causing a nuisance or pollution as defined in the California Water Code, and provide provisions for enforcement.

1.5 SEVERABILITY

If any section, subsection, sentence, clause or phrase of the Rules and Regulations is for any reason found to be invalid or unconstitutional, such decision shall not affect the remaining portions of the Rules and Regulations. The District declares that it would have approved the Rules and Regulations by section, subsection, sentence, clause, or phrase irrespective of the fact that any one or more of the sections, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

1.6 AMENDMENTS

The Rules and Regulations may be amended by District resolution at any regular or special meeting by a simple majority vote of the Board of Directors and without the approval of any customer, operator, or owner. Moreover, any amendments so made shall be deemed incorporated into the Rules and Regulations immediately upon adoption and will be administered as such. The provisions of Title 17 and Title 22 of the California Code of Regulations, including any amendments, or new related State legislation that affects recycled water quality or use shall be deemed immediately incorporated into these Rules and Regulations.

1.7 PRECEDENCE

The Rules and Regulations shall take precedence when they require higher quality material, equipment, design and/or construction methods, or more restrictive operating conditions, than are required by Federal or State law or local governing codes.

1.8 LIABILITY

The District assumes no responsibility for the maintenance and operation of any on-site recycled water system on the customer's side of the water meter with respect to violations of the regulatory agency requirements. The customer can expect a range in the quality of recycled water delivered to the use site due to the varied quality of source water. By accepting recycled water service the customer acknowledges and agrees that such water is suitable for the customer's particular use(s). The customer should recognize the limitations of applying recycled water to their particular end use(s). The customer assumes all liability and responsibility of every other kind, arising out of the use of recycled water for customer's use(s). By accepting recycled water service from the District, customer agrees to hold the District harmless from any claim, damage or

liability resulting from quantities, quality, time or occasion of delivery, or any other matter related to the maintenance, operation, and service of the customer's on-site facilities.

1.9 ENFORCEMENT

The District shall enforce the Rules and Regulations in all matters concerning the use of any recycled water. Each and every condition and requirement with respect to the use, connection, disconnection, reconnection, and/or discontinuance of recycled water and/or recycled water service provided by and set forth in the Rules and Regulations shall apply with equal force and effect to any person(s) or firm, public or private. There shall be no deviation from the Rules and Regulations except upon written authorization by the District's General Manager, who will act at all times within applicable regulatory agency constraints. An appeal procedure shall be provided and action of the Board of Directors shall be final.

Potable water service will not be provided to applicants for new water service from the District unless and until they have complied with the requirements for installation of a recycled water system for any mandatory uses and complied with applicable requirements of the Rules and Regulations.

Where an existing customer has been given notice of determination that use of recycled water is mandatory and recycled water is available, if, after a period of time from the date the applicant is notified in writing of the District's final determination under Section 4, the existing customer has not completed required on-site conversion work, then penalties may be imposed in accordance with provisions of Section 8.

1.10 PROTECTION OF PUBLIC HEALTH

The District reserves the right to take any action with respect to the operation of the recycled water system and at such time as it deems proper to safeguard public health. All production, distribution, and use of recycled water shall conform to the requirements of the Water Recycling Criteria. Where not covered more specifically herein, all uses shall conform to the California Department of Health Services (DHS) "Guidelines for Use of Recycled Water," "Guidelines for Use of Recycled Water for Construction Purposes" and "Guidelines for Worker Protection," which are deemed incorporated herein.

1.11 SERVICE AREAS

The Rules and Regulations pertain to recycled water service to lands and/or improvements lying within the jurisdictional boundaries of the District. Rules and Regulations applicable to properties outside the District are subject to agreement with the retail purveyor for the affected user.

Recycled water service shall be provided when related distribution facilities are completed and service becomes available.

1.12 AUTHORIZED USES

The Rules and Regulations limit the application of recycled water to those uses for which the Water Recycling Criteria or other specific State legislation provides requirements. Any of those uses or other uses for which explicit specifications are not provided in the Rules and Regulations can be considered, but must be approved on a case-by-case basis by the District after other appropriate regulatory agencies have granted such approvals, as may be required.

1.13 OTHER GOVERNING AUTHORITY

1.13.1 Los Angeles Basin Plan

The Basin Plan for the area of Los Angeles County within the Los Angeles Regional Water Quality Control Board (RWQCB) jurisdiction provides requirements and guidelines for use of recycled water within the service area with respect to surface waters and ground waters. The Rules and Regulations are based upon the current Basin Plan.

1.13.2 Guidelines for Distribution of Recycled Water

The District has adopted the American Water Works Association (AWWA) "Guidelines for Distribution of Non-potable Water," latest edition, published by the California-Nevada Section of AWWA, as its standards for construction of recycled water systems, which Guidelines are hereby incorporated into the Rules and Regulations by reference.

SECTION 2

DEFINITIONS

The following words and phrases are found in various locations of these Rules and Regulations. Their intent and meaning shall be interpreted as follows:

Air-gap separation: a physical break between a supply pipe and a receiving vessel. The air gap shall be at least double the diameter of the supply pipe, measured vertically above the top rim of the vessel, and in no case less than one inch.

Applicant: an owner, developer, builder, or authorized representative, firm, corporation, association, or agency that applies for recycled water service under the terms of the Rules and Regulations. A successful applicant becomes a recycled water customer.

Application rate: the rate at which water is applied to an irrigation or construction area, expressed in inches per day or gallons per minute per acre.

Approved backflow prevention assembly: a device installed to protect the potable water supply from contamination; this device shall be approved by the University of Southern California - Foundation for Cross-Connection Control and Hydraulic Research, DHS and the District in conformance with applicable portions of Title 17 of the California Code of Regulations (Title 17).

Approved use: one or more authorized uses of recycled water, mandatory or otherwise, for which the District has issued a Use Permit.

Authorized uses: those purposes for which recycled water is authorized to be used under the Water Recycling Criteria, including but not limited to irrigation, recreational and landscape impoundments, cooling in manufacturing processes, flushing toilets and urinals, consolidation of backfill, and other appropriate uses. The District encourages but does not require customers to use recycled water for authorized uses except for those uses defined as mandatory herein.

ANSI: American National Standards Institute

ASTM: American Society for Testing and Materials.

AWWA: American Water Works Association.

AWWA Guidelines: AWWA's "Guidelines for Distribution of Non-potable Water," California-Nevada Section, latest edition, or "Guidelines for the On-site Retrofit for Facilities Using Disinfected Tertiary Recycled Water," latest edition.

AWWA Standards: AWWA's *Standards for Construction Materials*, latest edition.

Board of Directors: the Board of Directors of Rowland Water District.

Commercial use: authorized use of recycled water for toilets, urinals, decorative fountains, cooling towers, industrial processes and other permitted applications on commercial sites.

Construction use: authorized use of recycled water to support construction activities such as soil compaction and dust control during grading.

Contractor: the person(s), firm, or corporation entering into a contract with the District, owner, or customer for the performance of work on all or any portion of facilities subject to the Rules and Regulations.

Conversion: changing on-site supply from potable water to recycled water in systems that were originally designed and installed to use potable water (see also "retrofit").

County: County of Los Angeles, State of California.

Cross-connection: any unprotected actual or potential connection between a potable water system and any source or system containing recycled or other non-potable water or a substance that is not or

cannot be approved as safe, wholesome, and potable; by-pass arrangements, jumper connections, removable sections, swivel or change-over devices and other devices through which backflow could occur, shall be considered to be cross-connections; cross-connections shall be as defined in Title 17, California Code of Regulations.

Cross-Connection Control Ordinance: Rowland Water District Ordinance No. 1-88.

CSDLAC: County Sanitation Districts of Los Angeles County.

Customer: any person, group, firm, partnership, corporation, association or agency accepting recycled water from the District's recycled water facilities for use in accordance with the Rules and Regulations.

Design area: a site, with well-defined boundaries, proposed to receive recycled water for an approved use as delineated in an application for a Use Permit.

Design consultant: any person or firm registered with the State as an engineer or landscape architect to provide site layout, landscaping, or irrigation system design services.

Direct overspray: any discharge of water directly onto areas other than that for which the application of recycled water is approved.

Director of Operations: the Director of Operations of Rowland Water District.

Discharge: any release or distribution of recycled water to a use area or disposal site/mechanism (outfall, live stream discharge, municipal sewage system); all discharges of recycled water must be approved by the regulatory agencies.

Discharge Permit: a permit issued by the RWQCB for the discharge of recycled water.

District: Rowland Water District.

DHS: California Department of Health Services.

Economically feasible: shall mean that the applicant or existing customer will recover the cost of installing an on-site recycled water system or converting an existing system for recycled water use, plus any cost associated with extending the District's recycled water system to the Qualifying Property and otherwise complying with the Mandatory Connection Ordinance within five (5) years after commencing recycled water service, based on the differential between the estimated cost of using potable water for the authorized uses.

Effluent: treated wastewater discharged from a water recycling plant.

General Manager: the General Manager of Rowland Water District.

General public: any person(s) at large who may come in contact with facilities and/or areas where recycled water is approved for use.

Gpm: gallons per minute.

HGL: hydraulic grade line.

Industrial use: authorized use of recycled water for industrial processes such as cooling, flushing, or manufacturing, and other related applications.

Inspection and testing: District will perform regularly scheduled on-site visits with operational testing accompanied by customer representative. The inspection and testing schedule will be determined by the District. In no circumstance will the interval between inspection and testing of a site be longer than every four years.

Inspector: any person(s) authorized by the District to perform inspection of either on-site or off-site facilities prior to construction, during construction, after construction or during operation.

Installer: a person(s) or firm performing work necessary to construct or install equipment or facilities subject to the Rules and Regulations.

Irrigated landscape: all areas irrigated including golf courses, parks, greenbelts, parkways, medians and other landscaped areas irrigated with a permanent irrigation system. Areas which are temporarily irrigated to restore natural vegetation for purposes of preventing erosion after grading shall not be included in calculating Irrigated Landscape.

Landscape impoundment: a body of recycled water, which is used for aesthetic enjoyment, landscape irrigation or which otherwise, that serves a function not intended to include public contact.

LACDHS: Los Angeles County Department of Health Services.

Mandatory Connection Ordinance: Rowland Water District Ordinance No. 0-9-2004.

Mandatory use: any one or combination of the following types of authorized uses: agricultural irrigation, construction use, landscape irrigation, landscape and/or recreation impoundments, and wildlife habitat use, for which recycled water is generally required by the District.

MGD: million gallons per day.

Non-potable water: water that is not intended for human consumption.

Off-site recycled water system: existing or proposed facilities under the control of the District, from the source of supply to the point of connection with the customer's on-site facilities, up to and including the District's meter and meter box.

Off-site supervisor: a qualified person designated by the District to be responsible for the safe and efficient operation of the District's recycled water distribution system; this person shall be knowledgeable in the construction and operation of recycled water distribution systems and in the application of State and local guidelines, criteria, standards, and regulations governing the use of recycled water.

On-site recycled water system: shall mean a recycled water system constructed and owned by the property owner which is physically separated from any potable water system, and complies with the requirements for cross-connection control, labeling and protection from human consumption or contact set forth in the Rules and Regulations and all applicable statutes, regulations, ordinances and orders.

On-site supervisor: a qualified person designated by a recycled water customer and approved by the District to be responsible for the safe and efficient operation of the customer's recycled water system; this person shall be knowledgeable in the construction and operation of recycled water and irrigation systems and in the application of State and local guidelines, criteria, standards and regulations governing the use of recycled water; this person shall be trained in cross-connection control to the satisfaction of the District.

Operations personnel: any employee of a customer, whether permanent or temporary, or any contracted worker whose regular or assigned work involves the supervision, operation or maintenance of equipment on any portion of on-site facilities using recycled water.

Operator: any person(s) or firm, who by entering into an agreement with a customer is responsible for operating on-site facilities.

Owner: any holder of legal title, contract purchaser, or lessee under a lease with an unexpired term of more than one (1) year, of property for which recycled water service has been requested or established.

Pantone™: color standard system.

Person: any public or private individual, partnership, corporation, agency, or association including homeowner's association.

Plans: the plans, working drawings, detail drawings, specifications, profiles, typical cross sections and supplemental drawings or reproductions thereof that shows locations, character, dimensions or details of the work.

POC: point of connection between on-site and off-site facilities.

Ponding: retention of recycled water on the surface of the ground or other natural or manmade surface that exceeds the surface infiltration rate and that is unable to runoff due to gravity such that a hazard or potential hazard to the public health results.

Potable water: water that conforms to the latest edition of the United States Public Health Service Drinking Water Standards, the California Safe Drinking Water Act, or other applicable standards.

PPC: positive pressure check.

Producer: an agency that produces recycled water.

psi: pounds per square inch.

Purple Book: an aggregate of California health laws related to recycled water, including excerpts from the Health and Safety Codes, Water Code and Titles 22 and 17 of the California Code of Regulations.

PVC: polyvinyl chloride.

Qualifying property: a parcel or tract that exists for which the District provides potable water service and for which it is economically feasible to provide recycled water service; or a parcel or tract for which development is proposed and for which it will be economically feasible to provide recycled water service.

Recycled water: as defined in *Water Recycling Criteria*, water that as a result of treatment of wastewater is suitable for direct beneficial use or a controlled use that otherwise would not occur, with the treatment of wastewater being accomplished in accordance with the criteria set forth therein.

Recreational impoundment: a body of recycled water used for recreational activities including, but not limited to, fishing, boating, and/or swimming, with allowable uses depending on treatment level of the recycled water.

Reduced pressure principle backflow prevention assembly: a backflow prevention device incorporating not less than two check valves, an automatically-operated differential relief valve located between the two check valves, a completely closing shut-off valve on each side of the check valve assembly, equipped with test cocks for testing.

Regulatory agencies: those public agencies having authority to promulgate rules and regulations, issue permits and enforce laws to protect the public health and water quality and having regulatory authority over the District, such as, DHS, RWQCB, and LACDHS, and others as may be appropriate.

Retrofit: modifying on-site facilities that were originally designed to accommodate potable water use so that they now accommodate recycled water use in compliance with the Rules and Regulations (see also "conversion").

Rules and Regulations: the "Rules and Regulations Governing Recycled Water Service," and

addenda thereto, and other rules and regulations referred to and incorporated herein.

Runoff: flow of water along the surface of the ground or other natural or man-made surface, including but not limited to, pedestrian walkways, streets, playground surfaces, and grassy slopes.

RWQCB: Los Angeles Regional Water Quality Control Board (Region 4).

Secondary effluent: wastewater that has been treated to a minimum level of effluent quality based on rules and regulations of the Environmental Protection Agency and defined with respect to biochemical oxygen demand, suspended solids, fecal coliform bacteria, and pH, and is consistent with provisions in *Water Recycling Criteria*.

Service: the furnishing of recycled water to a customer through a metered connection to the on-site recycled water system.

Service connection: the connection between the recycled water distribution system and the customer's on-site recycled water system.

Standard specifications: specifications adopted by the District for construction of potable water and recycled water facilities.

State: State of California.

Tenant: any person, group, firm, partnership, corporation, association, or agency that pays rent to occupy and use land or a building.

Tertiary effluent: secondary effluent that has been disinfected and filtered consistent with provisions in *Water Recycling Criteria*.

Treated wastewater: wastewater treated in accordance with the requirements of "Water Recycling Criteria."

UL: Underwriter's Laboratory.

UPC: Uniform Plumbing Code.

Use area: the specific area contained within a use site, designated to be served with recycled water through on-site facilities.

Use site: the specific property, containing one or more use areas, designated by the legally recorded tract and lot or parcel map description.

Use Permit: a permit issued by the District to a recycled water service applicant after the satisfactory completion of the service application procedures set forth in the Rules and Regulations; this permit constitutes a service agreement that legally binds the customer to all conditions in the Rules and Regulations and to any and all applicable regulatory agency requirements.

Violation: noncompliance with any condition or conditions of the Rules and Regulations and/or a Use Permit by any person, action or occurrence, whether willfully or by accident.

Water reclamation: the renovation of wastewater to produce a product that is approved for specific beneficial uses by the appropriate regulatory agency.

Water Recycling Criteria: California Code of Regulations, Title 22, Division 4, Chapter 3, sections 60301 through 60355, inclusive.

Windblown spray: dispersed, airborne recycled water capable of being transmitted through the air by natural or manmade wind to locations other than that for which the direct application of recycled water is approved.

SECTION 3

CUSTOMER PROVISIONS

3.1 APPROVED USE AREAS

Recycled water may only be used for approved uses in areas approved by the District. Approval may be obtained only through the service application procedure contained in the Rules and Regulations. In all cases, approval of a use and use area by the District will be contingent upon satisfaction of the requirements of the District and other applicable regulatory agencies.

The customer shall obtain approval from the District for any proposed change in the character of the use of recycled water.

3.2 DESIGN APPROVAL

Prior to the construction of on-site facilities that will use or receive recycled water the design of such facilities must be approved by the District. Approval shall be obtained only through the procedure contained in the Rules and Regulations. Approval shall be contingent upon the satisfaction of applicable design requirements, including those contained within the Rules and Regulations.

3.3 RECYCLED WATER SYSTEM RESPONSIBILITY

All off-site distribution facilities are the property of the District and shall be under the management and control of the District. Only authorized employees of the District shall have authority to operate said system and/or property in any manner. The off-site supervisor, designated by the District, shall be responsible for the operation of the off-site distribution systems and for the assessment of water quality as it relates to compliance with requirements of regulatory agencies. The Director of Operations is responsible for on-site monitoring and inspection of all customers.

3.4 REQUEST FOR INFORMATION

Recycled water customers shall provide upon request, written responses to the District, RWQCB, DHS, and LACDHS, requests for information to ascertain whether the recycled water customer is complying with the Rules and Regulations.

The District shall upon request make available to the customer a report that shows the typical or average quality of recycled water that the customer can expect to be delivered to his use site.

3.5 CONDITIONS OF SERVICE

The District reserves the right to revoke a Use Permit if any of the service conditions contained herein are not satisfied at all times.

3.5.1 Regulatory Conditions

Service to a customer may be terminated at any time the quality of the recycled water does not comply with the requirements of regulatory agencies or at any time the customer's operations do not conform to the Rules and Regulations.

3.5.2 Operational Conditions

Recycled water delivered through a connection to the District's recycled water system will be deemed to have been provided to, and received by, the customer identified in the Use Permit for recycled water service to that connection. Recycled water use may or may not be subject to the same restrictions as potable water. The District reserves

the right to schedule and control the use of recycled water if, in the opinion of the District or designated representative, control and scheduling are necessary.

3.5.3 Other Conditions

The customer shall retain a copy of the Rules and Regulations. The Rules and Regulations shall be maintained available at all times for reference by the operations personnel.

3.6 CONTINGENCY RESERVATIONS

If at any time during the construction or operation of facilities designed to use recycled water real or potential hazards are evidenced, the District reserves the right and has the authority to terminate water service in the interest of protecting the public health, safety and welfare or other elements of the recycled water system. In the event that recycled water service is so terminated, the District may, in the District's sole discretion, but shall not be obligated to, supply water to the affected on-site facilities either temporarily or permanently from the potable water system. The use of potable water would be subject to potable water availability from the District as well as special conditions set by the DHS, LACDHS, and/or the District.

SECTION 4

PERMITTING PROCESS AND TIMELINE

The permitting process typically includes the following principal steps:

- Preliminary Determination Notice
- Reconsideration and Waiver Process
- Final Determination Notice
- Use Permit Application
- Approval of the Applicant's Plans by the County
- Construction
- Inspection
- Issuance of Use Permit
- Commencement of Service

Each of these principal steps is discussed in the following sections and is summarized in Attachment B. The steps vary somewhat depending on whether the prospective recycled water use is a conversion from an existing potable water service or is a new service.

4.1 PROCEDURES FOR EXISTING POTABLE WATER SERVICE CUSTOMERS

4.1.1 Preliminary Determination Notice

The District shall make a preliminary determination, based on existing and planned extensions of the recycled water distribution system, as to which existing potable water customers it is economically feasible to convert to the use of recycled water. Whenever the District has made a preliminary determination that use of recycled water is mandatory, the District shall provide written notice to the prospective customer(s), of the District's preliminary determination. Such notice shall include as a minimum: descriptive information about the planned recycled water system, information on the cost of conversion and expected savings to the customer from replacing potable water uses with recycled water, customer responsibilities under the Rules and Regulations, current recycled water pricing, descriptive information about on-site facilities requirements necessary for conversion to recycled water, and an explanation of the customer's right to request reconsideration or a waiver.

4.1.2 Reconsideration and Waiver Process

Within forty-five (45) days after mailing of a preliminary determination notice by the District that a customer will be required to convert to recycled water service, the customer may request reconsideration of the determination or waiver of the requirement. The request for reconsideration or waiver must be in writing and specify the reasons for the objection. A request for reconsideration or waiver must be based upon facts indicating that the conversion to recycled water would not be economically feasible, or would present an undue risk to health and safety, or that under the particular circumstances the requirement of use of recycled water would impose an unreasonable hardship or burden upon the customer. Unless a request for reconsideration or waiver is submitted in a timely manner, the preliminary determination shall be final. Staff shall review the request for reconsideration or waiver and shall determine whether the preliminary determination that the use of recycled water is economically feasible should be modified or confirmed, or whether a waiver should be granted due to unreasonable hardship or burden under the particular circumstances. Upon issuance of a final determination by staff, the customer may appeal the determination to the General Manager.

4.1.3 Final Determination Notice

The District shall make final determination regarding recycled water service by written notice to the customer. Such notice shall include as a minimum: reference to the preliminary determination notice, indication of specific customer service(s) to be affected by the determination, and the requirement of and timing for on-site facility construction. The date of the final determination notice shall begin a 180 consecutive calendar day time period during which the customer must apply for a Use Permit, complete on-site facility construction and become ready to receive recycled water service.

4.1.4 Use Permit Application

Unless a waiver is granted, current District customers who are notified that recycled water use is mandatory will be required to complete a Recycled Water Use Permit Application form (see Attachment D) provided by the District and obtain a Use Permit from the District. Upon issuance of a Use Permit by the District and commencement of recycled service to the customer's property, the customer will be responsible for complying with the requirements for operating a recycled water system including maintenance of backflow prevention devices and compliance with the Cross-Connection Control Ordinance.

4.1.5 Recycled Water Conversion Costs

A potable water customer, with an existing connection to the District's potable water system, who is required by the District to use recycled water for mandatory uses, shall bear the cost for those modified or additional facilities on the customer's property which are necessary to convert such uses from potable to recycled water. The District will pay the cost of preparing plans, which show the modifications of the system, and processing the plans through LACDHS. The District shall at District expense construct the recycled water service connection to the customer's property and install a recycled water meter.

4.1.6 Financial Assistance to Conversion Customers

As the District expands the recycled water system, it will identify existing customers who would benefit by converting suitable water uses to recycled water service, by the quantity of water used for mandatory and authorized recycled uses, and the proximity of the property to an existing or planned recycled water main. If, after notice of determination to an existing customer that recycled water use is mandatory, the customer requests reconsideration or a waiver based upon unreasonable hardship or economic burden, the District may offer, as an alternative to a waiver, to provide financial assistance to the customer to make the conversion of the customer's on-site water system to accommodate recycled water. Such assistance may be provided where the cost to the District of providing financial assistance to the customer is outweighed by the benefits to the District and its customers in terms of reduced cost of water supply, conserving potable water for uses requiring potable water and making the most efficient use of the District's recycled water facilities. The provision of financial assistance shall be solely in the discretion of the District based upon operational and financial considerations. The District shall not be obligated to offer financial assistance to any customer. The terms of the financial assistance will be based upon the particular circumstances of each case, and may include a requirement that the customer continue to pay potable water rates for recycled water until any funds advanced by the District for converting the customer's on-site water system are recovered.

4.2 PROCEDURES FOR NEW WATER SERVICE APPLICANTS

4.2.1 New Water Service Application

All applicants for new water service from the District shall provide the District, at the time of requesting a new water service agreement, all necessary information requested by the District, concerning uses of water through the proposed connection, to enable the District to make a determination whether the proposed development will qualify for mandatory recycled water service. Said information shall be provided on the Recycled Water Service Application form (see Attachment C) supplied by the District, and shall include, depending on recycled water use type, the total area of irrigated landscape, any planned landscape or recreational impoundments, wildlife habitat uses, the total number of toilets and urinals, and the projected water usage for any manufacturing or industrial process that is suitable for recycled water.

The following items are to be included in an application package:

- Completed "Agreement for the Installation of Water System and Service of Water"

- Completed Attachment C

- Required drawing(s)

- Required fees and deposits due prior to approval

The District shall review the application package and may request additional information it deems necessary. The District shall determine if the property to be served is in a suitable area for recycled water use, and if the necessary quantity and quality of recycled water can be made available to the applicant.

4.2.2 Preliminary Determination Notice

Upon the District's preliminary determination that an applicant for new water service will be required to connect to the recycled water system, the District shall provide a written notice advising the applicant of the requirements for installation of separate on-site facilities, requirements for extension of the District's distribution mains necessary to connect to the applicant's property, customer responsibilities under the Rules and Regulations, current recycled water pricing, and an explanation of the applicant's right to request reconsideration or a waiver.

4.2.3 Reconsideration and Waiver Process

Within forty-five (45) days after mailing of a preliminary determination notice by the District that an applicant is required to connect to the recycled water system, the applicant may request reconsideration of the determination or waiver of the requirement. The request for reconsideration or waiver must be in writing and specify the reasons for the objection. A request for reconsideration or waiver must be based upon facts indicating that the use of recycled water for mandatory uses would not be economically feasible, or would present an undue risk to health and safety, or that under the particular circumstances the requirement of use of recycled water would impose an unreasonable hardship or burden upon the applicant. Unless a request for reconsideration or waiver is submitted in a timely manner, the preliminary determination shall be final. Staff shall review the request for reconsideration or waiver and shall determine whether the preliminary determination that the use of recycled water is economically feasible should be modified or confirmed, or whether a waiver should be granted due to unreasonable hardship or burden under the particular circumstances. Upon issuance of a final determination by staff, the prospective customer may appeal the determination to the General Manger.

4.2.4 Final Determination Notice

The District shall make final determination regarding recycled water service by written notice to the applicant. Such notice shall include as a minimum: reference to the preliminary determination notice, indication of specific prospective applicant service(s) to be affected by the determination, and the requirement of and timing for on-site facility construction. The date of the final determination notice shall begin a

negotiated time period during which the applicant must obtain the Use Permit, complete on-site facility construction and become ready to receive recycled water service.

4.2.5 Use Permit Application

Unless a waiver is granted, applicants who are notified that recycled water use is mandatory will be required to complete a Recycled Water Use Permit Application form (see Attachment D) provided by the District and obtain a Use Permit from the District. Upon issuance of a Use Permit by the District and commencement of recycled service to the applicant's property, the applicant will be responsible for complying with the requirements for operating a recycled water system including maintenance of backflow prevention devices and compliance with the Cross-Connection Control Ordinance.

4.2.6 Temporary Use of Potable Water

At the discretion of the District, potable water may be made available on a temporary basis until recycled water is available. Before the applicant receives temporary potable water, a Use Permit must be obtained for on-site service. Before the applicant switches to recycled water service, an inspection of the on-site facilities will be conducted to verify that the facilities have been maintained and are in compliance with the Use Permit and the Rules and Regulations. Upon verification of compliance, recycled water shall be served to the parcel for the intended use. If the facilities are not in compliance, the applicant shall be notified of the corrective actions necessary and shall have thirty (30) days to take such actions prior to initiation of enforcement proceedings.

No recycled or potable water use from off-site to on-site facilities is allowed for sites being designed for potable or recycled water until all water meters, meter boxes, and backflow prevention assemblies have been installed, tested, and inspected. On-site cross-connection testing must be completed to the satisfaction of the District prior to any meter releases. The District shall be contacted to turn on the water service angle stop to facilitate the testing of the backflow assemblies for testing purposes only. Backflow assembly test results are to be submitted to the Inspector. Special considerations can only be made by Director of Operations.

4.2.7 Cost of Facilities

Applicants for new water connections, regardless of whether the property was previously developed or is newly developed, will be required to bear the entire cost of those facilities necessary to accommodate recycled water for all mandatory uses, and, if desired, any other authorized uses. All customer-owned on-site recycled water systems shall comply with the Rules and Regulations, the Water Recycling Criteria, and all other statutes, ordinances, regulations and orders of Federal, State and local agencies having regulatory authority over the use of recycled water.

4.2.8 Extension of Recycled Water Main

Each applicant for a new water connection shall be responsible for all costs of constructing a separate recycled water system for mandatory recycled water uses on the property, including the cost of plan preparation and processing required for a recycled water system. Applicants will also be required to pay the cost of constructing recycled water lines and appurtenances necessary to connect the applicant's recycled water facilities to the nearest recycled water main of the District. The applicant may be required to bear the cost to extend the recycled water system of the District's to a point abutting the property boundary if the District determines that such cost does not make the use of recycled water economically infeasible. If the District determines to extend the line from a point on the District's recycled system other than the nearest point to the applicant's property, or determines to construct a line larger or longer than that needed to provide recycled water service to the property for

operational or other reasons, then the additional cost thereof shall be borne entirely by the District. Applicants will be required to deposit in advance the estimated cost of engineering services associated with design of the recycled water system extension necessary to serve the property, and to deposit the estimated cost of construction of the extension, prior to award of a contract.

4.3 USE PERMIT

4.3.1 Requirements

The customer or applicant who has obtained a Use Permit shall comply with the terms and conditions of the Use Permit, the Rules and Regulations, and any additional and future requirements prescribed by the District or other agencies governing recycled water service.

4.3.2 Permit Force

The Use Permit shall become effective upon completion of construction of the on-site project and inspection and final approval by the involved regulatory agencies. The Use Permit shall constitute a binding agreement between the District and the customer.

4.3.3 Permit Availability

A copy of the current Use Permit must be on file at the customer's office and available for review at all times.

4.3.4 Permit Life

The Use Permit shall remain in effect indefinitely, but may be temporarily or permanently revoked if:

- A change of identity of the customer occurs and the customer has not notified the District via the Recycled Water Use Permit Application form (see Attachment D) of the impending change thirty (30) consecutive calendar days prior to the change

- A change of operator occurs and the customer has not notified the District via the Recycled Water Use Permit Application form (see Attachment D) of the pending change thirty (30) consecutive calendar days prior to the change

- A change of recycled water use occurs inconsistent with the Use Permit

- A violation occurs and results in termination of service

A newly completed Recycled Water Service Application form (see Attachment C) must be submitted to the District to reinstate a Use Permit that has been cancelled. In the event a Use Permit is revoked due to violation of the Rules and Regulations, recycled water service to the customer will be terminated and the customer's use of potable water will be subject to the surcharge set forth in Section 8.

4.4 DESIGN AND CONSTRUCTION SUBMITTALS AND RECORDS

4.4.1 Facility Layout Documents

A location drawing shall be submitted by the customer to the District and approved by the District prior to commencing any installation of facilities. This drawing shall indicate the exact boundaries of the site of the proposed recycled water use at a scale that includes the site and the nearest paved surface street.

4.4.2 System Design Documents

The following information shall be submitted to and approved by the District prior to commencing any construction:

Plans and Specifications - Two copies of the plans, details and specifications (20-scale), signed by the design engineer or landscape architect (for the construction of the irrigation system), shall be submitted to the District for review and approval. All drinking fountains, permanent tables, potable water lines, water meters, backflow prevention assemblies, play areas, hardscape, ball field layouts, etc. shall be shown on the plans. Plans shall include a vicinity index map and shall include major street crossings and point of connection street names. Title sheet shall show Tract and Lot number. Plans shall include irrigation system design, notes, appurtenance details and legends without separate attachments.

Materials and Equipment Criteria - A legend showing the pertinent data for the materials used in the system shall be recorded on the plans. The legend shall include a pipe schedule listing pipe sizes and type of materials of construction, and all related appurtenances including their size, model number and description. Provide a detail for the installation of all proposed appurtenances and controller timing charts showing maximum hours of operation.

Call-Outs - Backflow prevention assemblies, meters, vaults, quick couplers, hose bibs, all potable water lines, exterior drinking fountains and other facilities shall be shown and called out on the plans. If no backflow prevention assemblies, potable water lines, exterior drinking fountains or other facilities are present in the design area, then it shall be specifically stated on the plans that none exists.

Standard Notes - as minimum, standard notes that are to be listed on the plans are as follows. Some notes may not apply to all recycled water uses. Additional notes may be added, as appropriate.

1. The design, installation, identification and use of all on-site potable, fire protection, and recycled water systems shall conform to all State of California, County of Los Angeles, AWWA, and District rules, regulations, guidelines, articles and codes regarding the design, installation, identification, use and maintenance of on-site systems and protection of the public's health. The Contractor shall have a copy of these plans and the Standard Specifications on the job at all times.
2. No construction shall take place without all required approvals and signatures on the plans.
3. The District shall be furnished with two (2) copies of the approved construction plans prior to starting construction. A pre-construction meeting shall be held on the jobsite prior to the start of construction.
4. The Inspector shall be notified two days (48 hours) prior to construction, or any inspection.
5. All water meters and related appurtenances shall be installed and inspected per District specifications before any water use can take place.
6. On-site Separation Requirements:

Horizontal Separation: The pressurized recycled water piping shall maintain a ten (10) foot horizontal separation at all times from all potable water piping and/or a parallel sanitary sewer system. If a 10-foot horizontal separation is not possible, special construction requirements shall be considered. Common trench construction is prohibited.

Vertical Separation: The pressurized recycled water piping shall maintain a minimum one foot vertical separation at all times from all pressurized potable water piping and/or a sanitary sewer system. The pressurized recycled water piping shall be installed one foot below all pressurized potable water piping and one foot above all sanitary sewer systems. If a one foot vertical separation is not possible, special construction requirements shall be considered.

7. Quick coupling valves on recycled water irrigation mainlines shall be removed at the end of the maintenance period unless specifically approved by the District to remain in place. If the quick coupling valves are required to be removed, the manner of removal shall be determined by the District.
8. Adjust all recycled water irrigation sprinkler, impact and rotor heads to minimize direct overspray, windblown spray, ponding and runoff, onto non-irrigated areas.
9. Any deviations from the signed and approved set of plans must be approved in writing prior to installation by the design consultant and the District. Any revision must be submitted to the design consultant and the District for approval. Failure to comply will result in a "stop work notice."
10. Final recycled water irrigation coverage tests must be performed and passed before a final release will be issued. Direct overspray, windblown spray, ponding and runoff onto non-irrigated areas are prohibited.
11. Cross-connection tests shall be performed on all on-site water systems, including potable, fire protection, and recycled water, as determined by the District prior to the use of recycled water. All cross-connection tests must be performed and approved before a final release will be issued.
12. The entire on-site recycled water system and its appurtenances, as well as other related on-site facilities and appurtenances, shall be inspected and reviewed by the District. Final inspections/site reviews must be performed and approved by the District before a final release will be issued.
13. Recycled water irrigation system hours of operation are limited to between 9:00 p.m. and 6:00 a.m. unless directed otherwise by the District.
14. The following information must be submitted to The District before a final release will be issued:
 - a. One complete set of District-approved record blue-line plans.
 - b. Completed District backflow investigation and test reports for all backflow prevention assemblies on site.
15. Failure to comply with any of the prior provisions and/or any other provisions of the Rules and Regulations will place the system in violation of the Rules and Regulations and will result in a "stop work notice" and/or termination of service until appropriate corrective steps have been taken.
16. The applicant shall install internal, external, or in-line anti-drain valves as necessary in recycled water irrigation systems to prevent low-head drainage.

4.4.3 Final Record Drawings and Documents

Final Record drawings shall be approved by the District as follows before a request for regular service start-up is made. Some items may not apply to all recycled water uses.

Recording Changes - All changes in the work constituting departures from the original design drawings, including changes in pressure and non-pressure lines, number or

location of spray heads, bubbler or drip systems shall be accurately recorded on one set of drawings. At the end of each working day, the contractor shall record all work accomplished for that day on the set of drawings in red ink. The final set of record drawings shall be professionally drafted in ink on mylar for future photo processing and reproduction. The red line copy shall be available to District upon request.

Dimensioning - All dimensions shall be taken from two permanent points of reference such as buildings, monuments, sidewalks, curbs or pavements.

Specific Call-Outs - The locations of the following items shall be shown:

- POCs
- Routing of irrigation supply lines
- Gate valves
- Sprinkler control valves
- Quick coupling valves
- Routing of control wires
- Irrigation controllers
- Remote control valves
- Irrigation-related appurtenances

Record Drawings - For the purpose of reference, record drawings shall be available at all times.

Irrigation Control Charts - Shall be prepared and submitted with the record drawings, and approved by the District before formal request for service start-up is made. The chart submittals shall include the following:

- Three 11"x16" controller charts shall be provided for each point of connection supplied showing the system area covered by the controller.
- Each chart shall be a reduced record drawing of the system. The final controller sequence shall be clearly legible at the reduction chosen.
- Each chart shall show the area of coverage for each station with colored areas.

4.4.4 Establishing a Temporary Service Connection

Prior to regular service, a temporary service connection may be used to supply recycled water to on-site facilities to permit testing of all or a portion of the facilities during installation. The Inspector shall be notified at least 24 hours in advance of such intended use of recycled water.

Except as provided above for testing, no recycled water connections from off-site to on-site facilities are allowed for sites being served potable water until cross-connection testing is satisfactorily completed and all backflow prevention assemblies have been installed, tested and inspected. Test results are to be submitted to the Inspector. Special considerations may be made by the Director of Operations.

4.4.5 Final On-site Facilities Inspection

Before final acceptance, the District and the Contractor's superintendent or foreman, will make a final inspection of all work to check the following items:

1. Final site review.
2. Final irrigation coverage test has been performed.
3. Cross-connection testing has been performed and passed.
4. The information requested in the Standard Notes has been submitted to the District.

The District will issue a completed recycled water certification form and Use Permit

upon successful completion of final inspection. The Use Permit must be obtained within 90 days following the service connection establishment, otherwise service will be discontinued.

4.5 REPORTING

Certain reporting or notification between the parties involved with the use of recycled water may be conducted in person or by telephone.

4.5.1 The District

The following information shall be submitted in writing by the District to the customer upon request and relates to ongoing recycled water service:

- The quantity of recycled water consumed by the customer
- The typical or average quality of recycled water delivered to the customer
- A recycled water monitoring report for the site

4.5.2 Customer

The customer shall report any non-compliance that may endanger health or the environment. Any such information shall be provided orally to The District immediately after the customer becomes aware of the circumstances. A written submission shall also be provided within five days of the time the customer becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The District, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrences(s) must be reported to the District within 24 hours:

- Any unplanned or uncontrolled discharge of recycled water resulting from water line breaks, malfunctioning control system, or any other circumstances
- Discharge of recycled water outside of the approved use area due to runoff, direct spray, overspray or windblown spray
- Discharge of recycled water at a construction site in an unapproved manner or in an unapproved area
- Due to the potential threat to the public water supply, discovery of a cross connection must be reported immediately to the District.

4.6 UPGRADES AND ALTERATIONS TO ON-SITE WATER SYSTEMS

Upgrades or alterations to on-site recycled, non-potable, and potable water systems on recycled water use sites must be inspected and approved by the District. Prior to commencement of new work, existing record drawings must be revised and submitted to the District for approval. Any upgrades or alterations made to an on-site recycled water system or potable water system on recycled water use sites that are not inspected or do not follow stated notification procedures place the owner and on-site system in violation of the Rules and Regulations. Any upgrade or alterations performed and backfilled without District inspection shall be exposed at the owner's expense for inspection and compliance determination. Penalties may apply, including, but not limited to, termination of service.

4.7 REPAIRS TO ON-SITE WATER SYSTEMS

Repairs to on-site recycled, non-potable, and potable water systems on recycled water use sites must be inspected by and completed to the satisfaction of the District. The District must be notified immediately when a repair is made. Any repairs

performed and backfilled without District inspection shall be immediately exposed at the owner's expense for inspection and compliance determination. Any on-site repairs that are not immediately inspected or do not follow stated notification procedures place the owner and irrigation system in violation of the Rules and Regulations. Penalties may apply, including, but not limited to, termination of service.

SECTION 5

TECHNICAL REQUIREMENTS FOR ON-SITE RECYCLED WATER FACILITIES

5.1 IRRIGATION SYSTEMS

5.1.1 Design Responsibility

The design of an on-site irrigation system that will use recycled water, including the preparation of plans and construction specifications, shall be under the responsibility of a qualified design consultant.

5.1.2 Provisions for Recycled Water

In those areas where recycled water is not immediately available for use when the area is ready for construction, an approved backflow prevention assembly shall be required for any potable water use. This assembly shall be provided, installed, and tested at least annually by the customer. All maintenance of the on-site backflow prevention assembly shall be the responsibility of the customer. In those cases where the District uses a master backflow prevention assembly at the inter-tie between the recycled water distribution system and the potable water system, the District may waive the requirement for the customer to install an on-site approved backflow prevention assembly.

Only the District, or the customer in accordance with District's requirements and under the approval and inspection of the District, shall remove said backflow prevention assembly and make the connection to the recycled water distribution system when recycled water becomes available. At such time, if the District removed the assembly, District shall return the assembly to the customer. The District shall determine all points of connection to the District's off-site facilities.

Backflow prevention assemblies are not required on recycled water irrigation systems after service has begun with recycled water. However, backflow prevention assemblies may be required on irrigation systems using recycled water, on a case-by-case basis as determined by the District. Backflow prevention assemblies required by the District on recycled water systems shall be clearly identified by painting the assemblies Pantone 522 color and/or installed in protective enclosures. The District shall notify the customer and it is the customer's responsibility to test these recycled water backflow prevention assemblies annually with the appropriate equipment, used only for recycled water backflow prevention assemblies.

The District shall make notification of all action taken with backflow prevention assemblies to the DHS.

5.1.3 Service Line

District reserves the right to specify the amount, size, and location and/or type of all off-site facilities. The recycled water service lines shall be extended to a location in compliance with the District's standard drawings or a curb line of the customer's property abutting upon a public street, highway, road or utility easement in which recycled water mains are installed.

5.1.4 Service Pressure

The pressure zone/hydraulic grade line shall be as provided by the District. The design consultant must prepare and submit a hydraulic worksheet indicating hydraulic constraints. When off-site system pressures are inadequate or exceed demands, the addition of booster pumps and/or pressure regulators shall be the responsibility of the owner.

5.1.5 Design Application Rates

The on-site irrigation system shall be designed to apply irrigation water in a manner compatible with the infiltration rates of the soil types within the approved use area. Evidence that infiltration rates have been assessed shall be included with the design. Where varying soil types are present to the extent that they cannot be adequately addressed by separate zones, the design of the irrigation system shall be compatible with the lowest infiltration rate present.

5.1.6 System Layout

The irrigation system shall be designed based on peak-application rate requirements to prevent discharge onto areas that are not approved for use. Adjustable arc, adjustable radius sprinklers with anti-drain/check valves shall be used adjacent to roadways, boundary lines, and hardscape to confine the discharge from the irrigation system to the design area. Recycled water leaving the planting areas, whether by direct overspray, ponding, runoff, or windblown spray, shall be minimized. A drainage device under control of the owner shall be installed at the toe of slope draining to single family residential lots. Drainage devices must stand-alone; slope drainage devices shall not be tied into any other drainage systems, e.g., private systems for single-family lots.

The irrigation system design shall avoid spray patterns that include obstructions that tend to concentrate recycled water to produce ponding and/or runoff, such as direct or indirect spraying against structures or objects.

No common trenching with other utilities of any kind is permitted.

The District reserves the right to limit the area of land under one ownership or homeowner's association to be supplied by one recycled water service connection and corresponding meter.

No service connection will be made for the purpose of supplying two or more parcels through a common service even though the premises may be in the same ownership. When a parcel is divided into two or more lots, separate service connections must be established for each lot to which service is provided. More than one residential unit on a single parcel, including apartments, duplexes and lots with houses at the front and rear may be served through a single service if application is made by the owner or other person who assumes full responsibility for the payment of all charges to the account of the service. Service to multiple residential units on a single parcel will be classified as "Multi-Family Residential Service" and billed at the District's established rates for such service. Violation of the rule prohibiting service to more than one parcel through a single service connection shall be cause for discontinuance of service through the service connection upon 30 days written notice to the original applicant to correct the violation. This regulation does not apply to service under separate contract with a water provider.

For properties of the same customer, irrigation systems shall be allowed to cross roads, streets, or other public rights-of-way to serve medians and slopes along streets. For properties under the ownership and control of other parties, a recorded easement shall be mandatory. A copy shall be issued to the District.

All recycled water used on any property must pass through the meter. Customers shall be held responsible and charged for all recycled water passing through the water meters.

On-site separation requirements:

Horizontal Separation: The pressurized recycled water piping shall maintain a ten (10) foot horizontal separation at all times from all potable water piping and/or a parallel sanitary sewer system. If a 10-foot horizontal separation is not possible, special construction requirements shall be considered. Common trench construction is prohibited.

Vertical Separation: The pressurized recycled water piping shall maintain a minimum one-foot vertical separation at all times from all pressurized potable water piping and/or a sanitary sewer system. The pressurized recycled water piping shall be installed one foot below all pressurized potable water piping and one foot above all sanitary sewer systems. If a one-foot vertical separation is not possible, special construction requirements shall be considered.

5.1.7 System Control Devices

Every newly constructed recycled water service line shall be equipped with an angle stop on the inlet side of the meter and ball valve on the discharge side of the meter, located within a District maintained meter box. The angle stop and ball valve are to be used only by District personnel to control the recycled water supply through the water service line. If the angle stop, ball valve, meter box, meter lid, or automatic meter reader equipment is damaged by the customer to an extent requiring repair or replacement, then the customer shall bear full financial responsibility for repair and replacement.

5.2 CONSTRUCTION WATER FACILITIES

5.2.1 Service Connections

Service connections for the construction use of recycled water may be provided by the District at locations as convenient as practicable to the customer, but at the discretion of the District. The service shall include a valved connection to a recycled water distribution main and water meter whose capacity shall be determined by the District from information supplied by the customer in the application for recycled water service. The meter shall be supplied and installed by the District.

5.2.2 On-site Distribution Facilities

Transmission lines for conveying recycled water from the metered service connection to a storage container or water distribution vehicle shall be of adequate size and structural integrity to ensure that leaks or ruptures will not occur in the course of normal construction activity. The customer shall provide these lines. Lines crossing construction roadways or other areas receiving regular vehicular traffic must be buried to a depth of at least 18 inches for pipes less than 2-inch diameter or a minimum of 24 inches deep if pipe diameter is 2 inches or greater. All lines shall be sleeved with Class 200 pipe twice the diameter of the transmission line. Rigid pipe able to withstand the planned vehicular loads shall be employed for such installations. All piping and appurtenances shall be identified as recycled water to the satisfaction of the District.

5.2.3 Storage Facilities

Recycled water storage tanks and distribution vehicles shall be of adequate design and structural integrity to ensure that leaks or ruptures will not occur in the course of normal use. The customer shall provide these tanks or ponds. All storage ponds and any storage tanks not supported more than six feet above ground-level shall be contained within a fence or other enclosure that will restrict access by the general public to these facilities at all times when operations personnel are not present. Outlet

control with positive shut-off shall be provided at each storage facility with mandatory District approved air gaps. All storage tanks and distribution vehicles shall be identified as recycled water to the satisfaction of the District.

All recycled water storage facilities owned and/or operated by the customer shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year frequency 24-hour storm, and protected against 100-year frequency peak stream flows.

5.2.4 Distribution Vehicles

Vehicles used for distributing recycled water for soil compaction and dust control shall be provided with adequate tanks and plumbing systems to ensure that leaks and ruptures will not occur in the course of normal use. A District-approved air gap is mandatory. Control valves shall be provided such that the recycled water can be applied in a controlled fashion for the approved use area and completely retained during transit in all other areas. Spray heads or nozzles shall be provided and configured such that the discharge is uniformly distributed and runoff, ponding, or windblown overspray conditions minimized.

5.2.5 Identification

All meters, valves, piping, storage tanks, pipe stands, water burros, and impoundments utilizing recycled water shall be identified as recycled water to the satisfaction of the District.

5.3 NON-IRRIGATION SYSTEM FACILITIES

All industrial, commercial and other non-irrigation recycled water system facilities shall conform to the technical guidelines as stipulated for irrigation and construction water systems noted above. Additionally, specific supplemental facility design requirements may be applied by the District and/or LACDHS on a case-by-case basis.

5.4 PROTECTIVE MEASURES

The following provisions are to protect the potable water supplies against cross-connections with the customer's recycled water system. These provisions are in addition to, not in lieu of, the controls and requirements of other regulatory agencies. These provisions are in accordance with Title 17. The Rules and Regulations are intended to protect the potable water supplies and are not intended to provide protection of customers from the hazards of cross-connections within their own property.

Approved backflow prevention assemblies on the potable water services to the property, as required in the Rules and Regulations shall be provided, installed, tested, and maintained by the customer at customer expense. These assemblies shall be located on the property served immediately downstream of the meter and shall not be on District facilities. All devices used shall be readily accessible for testing and maintenance and no device shall be submerged or exposed to recycled water, direct overspray, or runoff at any time.

During application for recycled water service, the applicant must provide sufficient information, including plumbing and building plans, to enable the District to determine the level of backflow protection required. The proper backflow protection, as determined by the District and approved by DHS and other appropriate regulatory agencies, shall then be installed, inspected, and tested before recycled water service is provided.

The customer shall notify the District not less than 30 days prior to a change of use

regarding potable or recycled water, customer, on-site supervisor, owner, tenant, or operator. District will then reassess the level of protection required. Any and all proposed alterations or upgrades to existing on-site water facilities must be reported to and approved by the District prior to the proposed change.

At their discretion, representatives of the District, and any regulatory agency having jurisdiction may conduct surveys of property where the District provides water service. These surveys are to determine if any actual or potential cross-connections exist. The customer shall provide full cooperation including manpower in facilitating these surveys.

Where protection is required, backflow protection in accordance with Title 17 and approved by DHS for potable water supplies shall be provided as follows:

Each District water service connection that supplies potable water to a parcel having a recycled water supply shall be protected against backflow from the parcel into the potable water to the satisfaction of the District.

Backflow protection may be required at parcels where there has been a history of cross-connection violation prior to recycled water supply being re-established.

Water meters used for recycled water service shall be tagged, color-coded, or otherwise distinguished as such in accordance with AWWA Guidelines. These meters shall not be interchanged or used for potable water service after repairs and/or meter testing has been performed.

SECTION 6

CONSTRUCTION SPECIFICATIONS FOR ON-SITE RECYCLED WATER FACILITIES

The following details for customer construction specifications that are use specific, such as for irrigation, are intended as examples of current use practice, and are not intended to preclude other approved uses, which may require case-by-case specifications.

6.1 GENERAL CONDITIONS

All construction work for on-site recycled water facilities shall be in conformance with the Rules and Regulations. Work is to begin only after the contractor, installer, or customer has obtained approval in the form of signed plans or revisions for recycled water use from the District (issued a Use Permit) and DHS.

6.1.1 Trade Names or Approved Equivalents

The contractor shall be permitted to supply any of the specified materials or to offer for approval by the design consultant and the District equivalent materials in accordance with the appropriate section of the Rules and Regulations.

6.1.2 Permits and Licenses

Except as otherwise provided, the contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

6.1.3 Liability

Neither the District, its employees and officers, members of the Board of Directors, nor authorized agents shall be personally responsible for any liability arising out of the work performed. The customer shall procure and maintain for the duration of the construction period certificates of general liability insurance and workmanship insurance in forms and amendments approved by the District and naming the District, and all the prior individuals as additional insures.

6.1.4 Loss and Damage

Neither the District, nor authorized representatives thereof shall be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof; or for any material or equipment used in performing the work; or for injury or damage to any person(s), either workmen or the public; or for damage to the owner's or customer's property or improvements, or for damage to adjoining property from any cause whatsoever during the progress of the work or at any time before or after final acceptance.

6.1.5 Legal Responsibility

The Contractor shall keep fully informed of all laws, ordinances and regulations that in any manner affect those engaged or employed in the work or the materials used in the work, or that in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the plans, drawings, specifications, or other documents in relation to any such law, ordinance, regulations, order, or decree, the contractor shall forthwith report the same to the design consultant and the District in writing.

The contractor shall observe and comply with and shall cause all of the contractor's

agents and employees to observe and comply with all such existing and future laws, ordinances, resolutions, regulations, orders and decrees, and shall protect and indemnify the District, its employees and officers, members of the Board of Directors, and authorized agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by the contractor or contractor's employees.

The contractor shall also indemnify and save the District, its employees and officers, members of the Board of Directors, and authorized agents harmless from all costs, losses, expenses, damages, attorneys' fees, and other costs of defense that the District may incur with respect to or on account of the work, and with respect to the failure, neglect or refusal of contractor to faithfully perform the work and all of contractor's obligations under the contract. Such costs, expenses, and damages shall include all costs incurred by the District to defend against any claims, stop notices or lawsuits based thereon in which the District is made a party.

The contractor shall observe the rules and regulations of the State, Department of Industrial Relations, Division of Industrial Safety, and, in particular, rules and regulations relating to shoring of trenches and excavations. All work shall be done in accordance with all directives, provisions and requirements pertaining to the method and manner of performing the work, in accordance with Cal/OSHA latest amendment or revision.

The contractor shall provide a job foreman present during working hours that can communicate effectively with District personnel both orally and in writing.

6.1.6 Inspection Authority

District shall at all times have access to all on-site work during construction and shall be furnished with such information as it may desire regarding location of facilities, the progress, workmanship and character of materials used in the work.

District shall have the authority to notify the customer of an apparent failure on the part of the contractor to carry out orders given or to perform any provisions of the plans or specifications. Upon its confirmation of the apparent failure, the customer shall be obligated to require the contractor to suspend the work wholly or in part. The contractor shall immediately comply with the written order of the District to suspend the work wholly or in part. Dependent on the nature of the non-compliance, it may require immediate action by the contractor via verbal order with a written order following. The work shall be resumed when methods or defective work are corrected as ordered and approved in writing by the District. Failure to comply with requests of the District will prevent further work, termination of all potable water and recycled water, and the final release of the entire project.

6.1.7 Potable Water System Identification

Where potable water service is provided to sites with recycled water service, the potable water system must have identification as required by the District.

6.2 MATERIAL SPECIFICATIONS

6.2.1 Facilities and Equipment Identification

Colors and materials used for the identification of all recycled water pipe, appurtenances, equipment, storage facilities, and approved use areas shall be in accordance with the latest edition of the AWWA Guidelines and the Purple Book. The AWWA Guidelines and the Purple Book describe the wording required for identification signs for approved use areas, storage facilities, and construction equipment. All recycled water distribution equipment, storage facilities, and approved use areas shall be identified as such. Identification requirements pertain to all recycled water facilities and potable water facilities (including those used for irrigation)

that are used on the same site or adjacent to sites using recycled water.

Identification for piping (including recycled water hoses), control valves, and all other recycled or potable water facilities shall include tags, labels, or other methods as directed by the District. For site identification, a minimum of two recycled water caution signs shall be installed on each site as directed by the Inspector.

6.2.2 Irrigation Systems

District rules, regulations, specifications, and details shall take precedence in any and all conflicts as determined by the District.

Piping

Piping and piping materials shall conform in all respects to the requirements in the Rules and Regulations, and as a minimum shall conform to the latest requirements of the AWWA and UPC standards for the type, size, class, and installation requirements of pipe being used. Design consultant shall verify all ANSI, AWWA and ASTM standards and references.

Pressure Supply Line - All on-site recycled water piping shall be installed in accordance with the AWWA and UPC standards and all other local governing codes, rules, and regulations. All piping shall be continuously and permanently marked with the manufacturer's name or trademark, nominal size, and schedule or class indicating the pressure rating. Supply lines up to the first control master valve(s) shall be brass.

District Detail Drawings

Use of all District details shall be mandatory where such details are applicable and available. Any details required that are not provided by the District shall be approved on a case-by-case basis by the District.

6.2.3 Construction Water Facilities

Piping

All piping employed for the transmission of recycled water for construction purposes shall be in serviceable condition and free from leaks and structural faults. All joints shall be structurally sound and free from leaks.

Valves

All valves employed with facilities using recycled water for construction purposes shall be in serviceable condition, provide positive shutoff, and be free from leaks.

Storage Tanks

All storage tanks used for recycled water, whether fixed or mounted on distribution vehicles, shall be structurally sound and free from leaks. Approved air gaps are mandatory.

6.2.4 Non-Irrigation System Facilities

All industrial, commercial and other non-irrigation recycled water system facilities shall conform to the material specifications as stipulated for irrigation and construction water systems noted above. Additionally, specific supplemental specifications for materials may be applied by the District and/or LACDHS on a case-by-case basis.

6.3 CONSTRUCTION METHODS

6.3.1 Irrigation Systems

Valve and System Control Device Installations

All on-site valves, valve boxes, valve markers and power supplies shall be installed in accordance with the requirements in the Rules and Regulations and local building codes.

Separation from Other Utilities

Separation between on-site recycled water lines and sanitary sewers and potable water lines shall be established in accordance with the latest requirements set forth by the DHS, but not less than the separations described in the AWWA Guidelines and Section 5 of the Rules and Regulations. Common trenching with other utilities or any other systems is strictly prohibited.

Laying Pipe

Recycled water lines 1½ inches and less in diameter below grade shall be buried with a cover of at least 18 inches. Recycled water pipelines 2 inches and greater shall be buried with a cover of at least 24 inches or 36 inches when potable water is used onsite. Pipe trenches shall be backfilled with clean material containing no rocks and debris that can damage the pipe.

Recycled water lines laid above grade shall be protected from thrust motion if such protection is determined to be required by the Inspector.

6.3.2 Construction Water Facilities

Valve Installations

All valves installed along the recycled water transmission pipeline and not attached to a rigid structure shall be protected from thrust motion if such protection is determined to be required by the Inspector. To achieve such protection, metal stakes with wire or plumbers tape lashes shall be installed at all such valves. Alternative methods of protection from thrust motion may be approved by the Inspector.

Laying Pipe

Recycled water lines laid above grade shall be protected from thrust motion if such protection is determined to be required by the Inspector.

Water Trucks

Trucks must be identified as carrying recycled water and not suitable for drinking. The feed pipe to the truck must be permanently attached and have an air gap to the tank.

Storage Tank Installations

All recycled water storage tanks shall be erected only on level ground. Provisions shall be made to prevent differential settling of the tank supporting structure. Approved air gaps are mandatory.

6.3.3 Non-Irrigation System Facilities

All industrial, commercial and other non-irrigation recycled water system facilities shall conform to the methods of construction as stipulated for irrigation and construction

water systems noted above. Additionally, specific supplemental construction methodologies and on-site practices may be required by the District and/or LACDHS on a case-by-case basis.

6.4 INSPECTION

Inspection of the work shall not relieve the contractor of any obligations to complete the work as prescribed by the applicable specifications. Defective work shall be made good and unsuitable materials may be rejected notwithstanding the fact that such defective work, unsuitable materials, or materials not as specified on the approved plans have been previously overlooked by the Inspector and accepted. The installation and inspection of unsuitable materials or materials not as specified on the approved plans shall not be construed as acceptance, and modification to these specifications shall only be made by the District in writing.

6.4.1 Irrigation Systems

Construction Schedule

If required by the District, the contractor shall submit a schedule to the District outlining his proposed construction operation. The contractor shall conform to the Rules and Regulations regarding prior notification for inspection and deviations from the approved schedule.

Notification and Approvals

All work shall be subject to inspection and approval. The contractor shall give due notice to the Inspector in advance of backfilling so that proper inspection may be provided. Unless the District expressly states otherwise, the contractor shall give a minimum of 48 hours notice prior to backfilling any and all work for which inspection is required, whether for materials or construction work.

Inspection Intervals

All work shall be subject to inspection by the District and shall be left open and uncovered until approved by the District. Potholing of piping is strictly prohibited.

The contractor shall not proceed with any subsequent phase of work until the previous phase has been inspected and approved by the Inspector. Record drawings must be updated daily prior to inspection.

Final Inspection

Following the completion of all construction work and the submittal and approval of record documents, calibration reports, certificates, and installation approvals, the Contractor shall request final inspection of the work. This request shall include the scheduling of the operational testing.

Before final acceptance, the District, accompanied by the Contractor's superintendent or foreman, will make a final inspection of all work.

6.4.2 Construction Water Facilities

Construction Schedule

The operator shall give the District a construction schedule prior to initiation of construction work.

Notification and Approvals

Unless the District expressly states otherwise, the operator in advance of any and all inspection requirements shall give a minimum of 48 hours notice, whether for materials or installation work.

Final Inspection

The operator shall request final inspection of the work. Prior to use of recycled water, District approval must be obtained. Signage, labels, and air gap on truck tank must be installed. The Use Permit must be on-site and in vehicle.

6.4.3 Non-Irrigation System Facilities

All industrial, commercial and other non-irrigation recycled water system facilities shall conform to the terms of inspection as stipulated for irrigation and construction water systems noted above. Additionally, specific supplemental inspection procedures may be required by the District and/or LACDHS on a case-by-case basis.

6.5 REVIEW AND TESTING

6.5.1 Irrigation Systems

Materials

The contractor shall furnish the District with such information, as it may desire, regarding the character and quality of materials used. When requested by District, the contractor shall submit a certification that the product meets the requirements of these specifications.

All pipe and accessories shall be carefully inspected by the District and contractor for damage in transit. Any damaged or degraded pipe or fittings delivered and unloaded at trench-site shall be rejected and removed immediately by the contractor from the site of the work.

6.5.2 Construction Water Facilities

Materials

The contractor shall furnish the District such information, as the District may request regarding the character or quality of materials used.

Installed Piping Systems

Installed piping systems shall be subjected to a leak test administered by the Inspector with the cooperation of the contractor. Before testing, the pipe and valves shall be staked if such protection from thrust motion has been determined to be required by the engineer or inspector. Any noticeable leaks shall be stopped and defective materials shall be replaced. Valves shall be operated during the test period.

Operational Testing

Prior to final acceptance by the District, all construction facilities shall be required to successfully pass an operational test as administered by the design consultant in the presence of the Inspector. The leak test for installed piping systems in conjunction with a leak test of all storage tank installations shall constitute the operational test.

Any required corrections shall be noted in the form of a punch list and submitted to the contractor by the District for correction. Service startup shall not be authorized until all corrections are made to the satisfaction of the District.

6.5.3 Non-Irrigation System Facilities

All industrial, commercial and other non-irrigation recycled water system facilities shall conform to the terms for review and testing as stipulated for irrigation and construction water systems noted above. Additionally, specific supplemental on-site review and testing procedures may be required by the District and/or LACDHS on a case-by-case basis.

6.6 RETROFITS AND CONVERSIONS

6.6.1 Retrofit to Recycled Water Use

Prior to conversion of an existing on-site system from potable water to recycled water use, the existing system shall be assessed by the District to determine whether it is suitable for use as a recycled system. To the extent practicable, the owner shall provide the District with a diagram showing, in detail, the size, composition and location of all components and materials comprising the system to be retrofitted. The District shall review the diagram or other documentation describing the on-site facilities and make a physical inspection of the system to determine what alterations, additions and other measures are necessary to bring the system into acceptable compliance with the Rules and Regulations. After District approval, LACDHS shall also review and approve all conversions in accordance with the Use Permit application process in the Rules and Regulations. No existing on-site potable water facilities shall be connected to or be incorporated within the recycled water system without the District and other regulatory agency testing and approval. As a minimum, the retrofit of a potable water system to a recycled water system shall require:

- Identification of all existing on-site above-grade pressure pipelines, valves, and appurtenances in accordance with requirements of the Rules and Regulations for new construction of recycled water systems

- Installation of an approved air gap or backflow prevention assembly devices in accordance with requirements of the Rules and Regulations and subject to cross-connection control tests required in order to prevent cross-connections with or contamination of a potable water system at any location where it is proposed to retain a connection to a potable system

- Performance of dye test or pressure tests to determine existence of cross-connections with all on-site potable water systems

- Submittal of as-built record drawings package

- Completion and submittal of Attachments C and D

The District recommends installation of a master valve and flow sensor to automatically shut off system in the event of a pipeline break.

6.6.2 Conversion from Recycled Water Use

If, due to on-site failure of the recycled water system, or use violations, the District terminates recycled water service to the site, and the customer elects to convert on-site facilities from a recycled water supply to a potable or other water supply, it shall be the responsibility of the customer to perform conversion, unless determined otherwise by the District. Prior to District approval, the LACDHS shall review and approve all

such conversions. As part of the conversion effort, the customer shall:

Install approved backflow prevention assemblies on all potable, or other water meter connections

Remove any/all special recycled water quick couplers and be responsible for replacement with quick couplers approved for potable water systems

Notify all on-site personnel involved

Remove all recycled water identification labels/signs, tags, and tapes where possible. Change out branded valve box lids, to the satisfaction of the District

Provide required disinfection of all recycled water systems as mandated by appropriate regulatory agencies.

SECTION 7

OPERATIONAL REQUIREMENTS FOR ON-SITE RECYCLED WATER USE

The following details for customer operational requirements that are use specific, such as for irrigation, are intended as examples of current use practice, and are not intended to preclude other approved uses, which may require case-by-case specifications.

7.1 SPECIFIC LIMITATIONS

7.1.1 Runoff Conditions

Conditions that directly or indirectly cause runoff outside of/ or within the approved use area, whether by design, construction practice, or system operation, shall be minimized.

7.1.2 Ponding Conditions

Conditions that directly or indirectly cause a ponding condition outside of or within the approved use area, whether by design, construction practice, or system operation, shall be minimized. Temporary ponding in a vegetated area caused by draining of system or meter testing is allowed in District specified areas with prior District approval.

7.1.3 Direct Overspray Conditions

Any discharge of water directly onto areas other than that within the approved use area is strictly prohibited.

7.1.4 Windblown Overspray Conditions

Conditions that directly or indirectly permit windblown spray to pass outside of the approved use area, whether by design, construction practice, or system operation, shall be minimized.

7.1.5 Unapproved Uses

Use of recycled water for any purposes other than those explicitly approved in a Use Permit issued by the District and without the prior knowledge and approval of the District is strictly prohibited.

7.1.6 Disposal In Unapproved Areas

Disposal of recycled water for any purposes, including approved uses, in areas other than those explicitly approved in the Use Permit issued by the District and without the prior knowledge and approval of the District, is strictly prohibited. Discharge of water from flushing or draining of the recycled system shall be done either at the approved use area and in a manner that does not create ponding or runoff conditions, or to a sanitary sewer manhole, with the approval of the agency responsible for operation of the sanitary sewer. In no case shall the discharge of recycled water to a sanitary sewer cause the sewer to overflow or otherwise create a public health hazard or nuisance.

7.1.7 Cross-Connections

Cross-connections, permanent or temporary, resulting from the use of recycled water or from the physical presence of a recycled water service, whether by design,

construction practice, or system operation, are strictly prohibited.

7.1.8 Unprotected Drinking Fountains

Any drinking fountain located within the approved use area designated by the Use Permit shall be protected, from contact with recycled water. Lack of such protection, whether by design, construction practice, or system operation, is strictly prohibited.

7.1.9 Unprotected Public Facilities

Facilities that may be used by the general public, or on-site personnel, including but not limited to eating areas, eating surfaces/benches, pools, spas, hardscape, and playground equipment/play areas, and located within the approved use area designated by the Use Permit, shall be protected from contact with recycled water. Lack of such protection is prohibited until review and concurrence by the District, DHS, and LACDHS on a case-by-case basis.

7.1.10 Hose Bibbs

Installation of hose bibbs on any on-site system that presently operates or is designed to operate with recycled water, regardless of the hose bibb construction or identification, is strictly prohibited.

7.1.11 Fire Hydrants

Use or installation of fire hydrants on any site that presently operates or is designed to operate with recycled water, regardless of the fire hydrant construction or identification, requires prior written approval by the District.

7.1.12 Hours of Operation

Irrigation with recycled water is restricted to particular hours that vary for the following application areas:

- Turf areas and center street medians
- Slopes and groundcover/shrub areas
- Golf courses

Hours of operation are from 9:00 p.m. to 6:00 a.m. unless otherwise approved by the District. The District may change specific times of operation for certain customers to meet District operational requirements.

Avoidance of potential human contact with recycled water shall take precedence over recycled watering schedules. Irrigation system runtimes shall be adjusted to minimize potential human contact with recycled water, on an individual lateral system basis. The District shall require specific run times and durations where there is a history of human contact.

7.1.13 Water/Garden Hoses and Hose Appurtenances

Water/garden hoses and hose appurtenances utilizing recycled water shall be purple in color with heavy-duty brass fittings. Hoses shall be continuously imprinted with "Caution; Recycled/reclaimed Water Do Not Drink" and rated at 150 psi working pressure. Hoses shall only be used for recycled water use. Use of these hoses for potable water use is strictly prohibited.

7.2 IRRIGATION SYSTEMS

7.2.1 Supervision

On-site irrigation systems at each use area under the customer's control shall be under

the management of the on-site supervisor designated by the customer or the operator and approved by the District. On-site supervisors shall be responsible for the installation, operation, and maintenance of the irrigation system; enforcement of the Rules and Regulations; prevention of potential hazards and cross-connections; and maintenance of the recycled water system plans in record drawing form, including location of any on-site potable water features and facilities. The on-site supervisor, in the event of a contamination to the public potable water supply, shall be responsible for immediate notification to the District.

The on-site supervisor or representative shall check all appurtenances on the on-site irrigation system to ensure proper operation, and perform a coverage test of the system at least quarterly. The owner shall keep records of quarterly on-site testing using the On-site Recycled Water Testing form (see Attachment E) for District review. Records must be kept on file for a minimum of five years.

The on-site supervisor or representative shall be available during normal working hours at an address listed with the District for the purpose of hosting an inspection tour or for discussing operational aspects of the system. The on-site supervisor shall be able to effectively communicate with District personnel orally and in writing. The on-site supervisor or representative shall be available via telephone at a number listed with the District for emergency off-hours contact on the Recycled Water Use Permit Application form (see Attachment D). Where necessary, keys and/or lock combinations shall be issued to the District to provide access upon request.

7.2.2 Operator Certification Submittal

Once the customer has selected the operator of an on-site recycled water system, the selected operator must complete a recycled water operators' certification process. District shall evaluate this submittal and advise the operator of the need for any additional information or action. Operators must attend a training session coordinated by the District and LACDHS prior to receiving operation certification or within 180 consecutive calendar days after certification, as training sessions are scheduled.

If the customer selects a new operator during the course of service, the Use Permit must be updated via the Recycled Water Use Permit Application form (see Attachment D), which shall be submitted by the new operator to the District. The District shall update all Use Permits to confirm information accuracy.

7.2.3 Temporary Service Connection

A temporary service connection may be provided for on-site construction testing purposes. The temporary service connection consists of the permanent service connections and meter plus any backflow prevention assemblies, if required.

7.2.4 Service Startup

Following final District inspection and certification of the project, the customer shall request regular service startup. District shall begin regular service within five working days of approval of service startup.

7.2.5 Confinement of Irrigation

The customer shall be responsible for maintaining and controlling the system in order to minimize human contact, prevent human consumption of recycled water, and to control and eliminate direct spray, overspray, ponding and runoff. The customer shall be responsible for any subsequent uses of the recycled water.

7.2.6 Dye Testing/Pressure Testing

In order to determine the existence of any cross-connections or backflow conditions into the potable water system, acceptable tracer dyes may periodically be introduced into the recycled water system by the District where feasible, and/or the District may perform a pressure test where the recycled system is isolated and pressure is bled off.

7.2.7 Contamination

In the event of contamination or pollution of a potable water system due to a cross connection or other failure, LACDHS and the District shall be immediately notified, so that appropriate measures will be taken to correct the problem. The on-site supervisor shall submit a written report explaining the contamination within five working days.

7.2.8 Maintenance

A preventive maintenance program designed to ensure the continued operation of all system elements within the requirements of the Rules and Regulations shall be evidenced by the customer using the On-site Recycled Water Testing form (see Attachment E) for District review. Records must be kept on file for a minimum of five years.

7.3 CONSTRUCTION WATER FACILITIES

7.3.1 Supervision

The operation and surveillance of the construction water facility at each use area under the customer's control shall be under the management of an on-site supervisor designated by the customer or the operator and approved by the District. On-site supervisors shall be responsible for the installation, operation, and maintenance of the on-site facility, equipment, enforcement of the Rules and Regulations, and prevention of cross-connections and potential hazards. The on-site supervisor or representative shall be available via telephone at numbers listed with the District for contact during working hours and after hours.

7.3.2 Identifying Equipment

All equipment and facilities using recycled water shall be identified per District specifications.

7.3.3 Application Control

Recycled water used for the purpose of soil compaction and dust control shall not be stored or applied in a manner that causes runoff, ponding, windblown overspray conditions, or discharge in any way onto unapproved areas. If such conditions occur, the method of application shall be altered to correct them and prevent any further ponding, runoff, or windblown spray onto unapproved areas. Control valves on the water distribution vehicles and other controlling devices shall be properly employed to prevent the application of recycled water outside the approved use area onto surfaces including, but not limited to, street pavements, sidewalks, and drainage courses.

7.3.4 Maintenance

The customer shall establish a preventive maintenance program designed to ensure the continued operation of all system elements within the requirements of the Rules and Regulations. Written records of maintenance activities shall be kept by the customer and open to inspection by the District.

7.3.5 Reuse of Equipment

Any equipment, such as tanks, water trucks, temporary piping or valves and portable pumps that have been used with recycled water shall be drained, cleaned and disinfected before removal from the approved use area to another job site. This disinfection and cleaning shall ensure the protection of the public health in the event of any reuse of such equipment with higher quality water. Methods of disinfection shall be approved by the District or the appropriate regulatory agency, and the disinfection process shall be performed in the presence of a person designated by the District's Director of Operations. When storage tanks or distribution vehicle tanks are provided with an inlet air gap whose configuration is approved by the LACDHS, such on-site disinfection shall not be required.

7.4 NON-IRRIGATION SYSTEM FACILITIES

All industrial, commercial and other non-irrigation recycled water system customers shall also conform to the specific prohibitions and operational requirements as stipulated for irrigation and construction water systems. Additionally, specific supplemental operational and maintenance requirements may be mandated on a case-by-case basis as described below.

7.4.1 Supervision and Surveillance

It is the responsibility of the customer to provide surveillance and supervision of said recycled water system in manner that assures compliance at all times with the Rules and Regulations. The customer shall designate an on-site supervisor with the approval of the District to provide liaison. This person shall be available to the District at all times and shall have the authority to carry out any requirements of the District with regard to the operation of the customer's recycled water system. The District must be notified immediately of any change in this position. The District shall provide periodic inspections of the customer's system and report all violations to the appropriate regulatory agency in accordance with applicable procedures that have been established by law, code, permit or practice.

7.4.2 Annual Inspection and Monitoring

The District shall annually monitor the operation of the customer's recycled water system by performing a visual inspection. This inspection shall be in conjunction with the annual testing for cross-connections. This inspection shall include at a minimum, the visual inspection of all backflow prevention devices, pump rooms, exposed piping, pipe galleries, valves, pressure reducing stations, points of connection, signs, labeling, tags etc. The on-site supervisor's maintenance records shall be inspected to review all maintenance since the last inspection. The District reserves the right to make unannounced inspections of the facility.

Should a cross-connection be discovered during the inspection, the Emergency Cross-Connection Response Plan shall be immediately invoked by the on-site supervisor.

Upon completion of the inspection, a Visual Inspection Report Form will be signed and dated by both the on-site supervisor and the District. The original shall be maintained by the District with copies going to the on-site supervisor and any required regulatory agency.

7.4.3 System Modifications

No modifications shall be made to any recycled water system or potable water system where dual systems exist, by the customer, without the prior approval of the District. This includes modifications to the approved plans, or to an operational system.

Detailed plans of any modifications should be submitted to the District and the modifications inspected by the District prior to their being placed in operation.

Emergency modifications or repairs can be made by the customer to the recycled water system without prior approval of the District to prevent contamination, damage or a public health hazard. As soon as possible the customer shall notify the District of such emergency modifications and file a written report.

7.4.4 System Maintenance

Prior to any non-irrigation recycled water system being activated, an Emergency Cross-Connection Response Plan and a comprehensive maintenance program must be developed by the customer and approved by the District. A comprehensive maintenance program must include inspections, testing, notification procedures, education, and accurate records keeping. Maintenance is to be performed by qualified persons under the direction of an on-site supervisor. No repairs or modifications are to be made to the recycled or potable water systems without the knowledge and consent of the on-site supervisor. The maintenance program shall insure the proper operation of the buildings water system(s). In buildings where both recycled water and potable water are present, annual inspections and testing is required to insure no cross-connections exist. Backflow prevention devices located on site require quarterly inspections and annual testing. Accurate records must be maintained of all maintenance, inspections and tests performed upon the water system(s). Practicing a comprehensive maintenance program will help insure system compliance.

7.4.5 Personnel Training

The non-irrigation system customer is required to train all operations personnel in the proper use of recycled water. Any training program should include but not be limited to the following:

Operations personnel must be aware that recycled water although highly treated, is non-potable.

Good personal hygiene must be followed.

At no time shall recycled water be used for human consumption.

Operations personnel must understand that working with recycled water is safe provided that good common sense is used and applicable regulations are followed.

Operations personnel must understand that there is never to be a direct connection between the recycled water system and the potable water system.

All new employees shall be trained in the proper use of recycled water and supervisory personnel should be held accountable to insure that employees are not using recycled water in a careless manner.

7.4.6 Contamination and Emergency Response Procedures

Unauthorized Discharge It is responsibility of the customer to report to the District all system failures that result in an unauthorized discharge of recycled water. An immediate oral report followed by a written report is required.

Contamination of Drinking Water In the event of contamination of the potable water system due to a cross-connection on the customer's premises, the District shall be immediately notified by the customer. The customer is to immediately invoke an Emergency Cross-Connection Response Plan as follows:

A. In the event that a cross-connection is detected by the on-site supervisor, the

District, or representatives of DHS or LACDHS, the following shall be implemented immediately.

1. Eliminate the cross-connection.
 2. Collect water samples from the potable water system and perform a 24-hour bacteriological analysis. Water samples should be collected from the closest acceptable point to the cross-connection. If the bacteriological analysis is positive follow the procedure for a backflow incident outlined in "B" below.
 3. Notify the District by phone. This notification is to be followed by a written notice within 24 hours. The written notice is to include an explanation of the nature of the cross-connection, date and time discovered, and the steps taken to mitigate the cross-connection(s).
- B. In the event that a backflow incident is suspected or occurs the following procedures shall be implemented immediately.
1. Notify the District by phone. This notification is to be followed by a written notice within 24 hours. The written notice is to include an explanation of the nature of the cross-connection, date and time discovered, and the steps taken to mitigate the cross-connection(s).
 2. Keep the potable water system pressurized and post "Do Not Drink" signs at all potable water fixtures and outlets.
 3. Immediately shut down the recycled water supply to the facility at the meter.
 4. Drain the recycled water system.
 5. Identify the cause and location of backflow and eliminate the cross-connection.
 6. Pressurize the recycled water system.
 7. Chlorinate the potable water system maintaining a chlorine residual of at least 50 mg/L for 24 hours.
 8. Flush the potable water system after 24 hours and perform standard bacteriological analysis.
 9. If test results are acceptable obtain final approval from the District before removing signs.

7.5 TESTING AND INSPECTION

Systems constructed to immediately begin using recycled water or systems constructed for recycled water use, but will be using potable water in the interim until recycled water becomes available in the area, are required to successfully pass cross-connection control testing in order to continue water service. A final release letter will be issued when these testing and other District requirements are met. No potable water other than for testing and no buildings or facilities using potable water, shall be utilized or occupied until all cross-connection control testing and final inspection requirements have been performed and passed.

Any use site receiving recycled water and potable water shall be required to successfully pass routine inspection and cross-connection control testing in order to continue to receive potable, recycled water and sewer service.

For sites adjacent to recycled water use sites, cross-connection control testing and site inspections may be required on a case-by-case basis, to ensure the protection of the public water supply and public health.

7.5.1 Schedule

The District will inspect and test at least every four years each site utilizing recycled water and potable water for compliance with District, State, and County regulations governing use of recycled water on-site. Sites with public exposure will be tested more frequently.

Any site where the period of time since the last inspection exceeds inspection interval established by the District by more than sixty (60) consecutive calendar days will be subject to recycled water service termination if the delay is a result of lack of cooperation or coordination of the owner or their representatives.

Any recycled water site where recycled water service has been discontinued for a period of thirty (30) consecutive calendar days, or has exceeded the previous inspection and testing schedule established by the District will be required to perform an inspection and cross-connection testing prior to and in conjunction with regular service start-up. No recycled water shall be utilized on-site without the testing being performed.

7.5.2 Procedures

The On-site Recycled Water Testing form (see Attachment E) includes a non-exhaustive list of standard inspection procedures. The District reserves the right to add to or alter testing procedures as necessary. Testing will review all on-site POCs to verify proper identification and proper backflow protection with current test reporting as required by the District and DHS.

7.6 MAINTENANCE RECORDS

The on-site supervisor or representative shall assess the on-site recycled water system quarterly to ensure full compliance with all current regulations governing use of recycled water. The on-site supervisor or representative of the use site shall maintain records for the quarterly assessment during the routine inspection and testing by the District and keep them on file for District review upon request. If the forms are not available for District review upon request, the District may terminate the recycled water service and reconnection fees will apply to restore recycled water service.

SECTION 8

VIOLATIONS AND PENALTIES

8.1 DETERMINATION

The District reserves the right to determine whether a violation of the Rules and Regulations has resulted from any action and/or occurrence that are the responsibility of the customer. Insofar as violation of the Rules and Regulations constitutes violation of any regulatory agency requirement, the District makes its determination on behalf of the concerned agency(s). However, this determination and any consequential penalties levied by the District do not limit the penalties or other enforcement actions which may be imposed by other regulatory agencies for the same violation.

8.2 VIOLATIONS

Violations shall include those actions and/or occurrences that directly cause noncompliance with any one of the specific operational limitations as listed in the Rules and Regulations, such as runoff conditions, ponding conditions, direct and windblown overspray conditions, unapproved uses, disposal in unapproved areas, cross-connections, unprotected drinking fountains, unprotected public facilities, hose bibbs, fire hydrants, and hours of operation. However, by definition, noncompliance with any condition or conditions of the Rules and Regulations or Use Permit, whether willfully or by accident, shall constitute a violation. Pursuant to Section 35424 of the California Water Code, any violation of the Rules and Regulations is a misdemeanor.

Customer reporting requirements in the event of a violation are outlined in Section 4.

8.3 CORRECTIVE ACTION

Any person, firm, corporation, association, or agency found to be violating any provision of the Rules and Regulations or the terms and conditions of the Use Permit, or applicable State or local statutes, regulations, ordinances, or other requirements shall be served by the District with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations. Notwithstanding correction of the violation by the customer, the District may impose penalties or take other enforcement actions pursuant to any other provision of the Rules and Regulations.

8.4 PENALTIES PRIOR TO ISSUANCE OF THE USE PERMIT

8.4.1 Existing Potable Water Service Being Converted to Recycled Water Use

If after one hundred and eighty (180) consecutive calendar days from the date of the District's final determination notice, the prospective customer has not completed required on-site retrofit construction work, then, in addition to any other penalties set forth in the Rules and Regulations, the District may impose a surcharge equal to fifty percent (50%) of its potable water rate in effect at the time of violation. If imposed, this surcharge will be included in the customer's monthly billing, and will continue until the customer has complied with the Rules and Regulations to the District's satisfaction.

8.4.2 Recycled Water Service Temporarily Using Potable Water

Where recycled water is available in off-site facilities, and where temporary use of potable water has been approved by the District for a recycled water service, if after thirty (30) consecutive calendar days from the date of the District's corrective action notice, the prospective customer has not completed required on-site facility corrective

actions and achieved compliance, then, in addition to any other penalties set forth in the Rules and Regulations, the District may impose a surcharge equal to fifty percent (50%) of its potable water rate in effect at the time of violation. Such surcharge will be imposed on the service requiring compliance, will be included in the customer's monthly billing for that service, and will continue until the customer has complied with the Rules and Regulations to the District's satisfaction.

8.4.3 Penalty for Lack of Inspection During Installation

Any work not inspected by the District shall be required to be exposed for District inspection, at the owner's expense. Failure to comply with this requirement will result in termination of potable and/or recycled water. (Reconnection fees shall apply.) Service shall only be restored when, in the opinion of the District, the inspection requirements have been met.

8.5 PENALTIES AFTER ISSUANCE OF THE USE PERMIT

Failure to permanently cease all violations within the time stated shall result in revocation of the Use Permit by the District and termination of water, sewer, and/or recycled water service. Violations regarding any one service may result, at the sole discretion of the Board of Directors or General Manager, in termination of any combination of or all water, sewer, and recycled water service in the following manner.

8.5.1 Interim Revocation

In cases where the serious nature of the violations described above require immediate action, the Board of Directors or General Manager may, in the sole discretion of the Board of Directors or General Manager, immediately revoke a Use Permit on an interim basis and thereupon cease water, and/or recycled water service, subject to a timely decision on permanent revocation of the Use Permit pursuant to a public hearing as provided herein.

8.5.2 Permanent Revocation

Permanent revocation of a Use Permit shall occur only subsequent to a public hearing held in the manner hereinafter provided. The applicant, owner, or customer shall be given written notice ten (10) consecutive calendar days prior to a hearing on the possible permanent revocation of any Use Permit by the District. The notice shall specify the grounds of the proposed revocation of any such Use Permit in reasonable detail. It may but need not describe suggested corrective action acceptable to the District. Notice may be delivered personally to the applicant, owner, or customer or it may be given by depositing such in the United States mail with postage prepaid, addressed to the applicant, owner, or customer either at the current address of record. Any such action to permanently revoke a Use Permit shall be effective ten (10) consecutive calendar days after notice of the Board of Director's decision and shall be either personally delivered to the applicant, owner, or customer or placed in the United States mail, postage prepaid, addressed to the applicant, owner, or customer in the manner hereinabove specified.

In the alternative to such action, the District may establish a fifty percent (50%) surcharge on the continuation of water, and/or recycled water service by the District until such time as the applicant, owner, or customer has taken action to comply with all of the hereinabove described requirements for obtaining service from the District in its reasonable discretion. The foregoing provisions of the Rules and Regulations are a requirement of any Use Permit, and any application for recycled water service therefore shall be subject to such provisions. The Board of Directors, if it deems such to be in the best interest of the District, may on an interim basis or otherwise waive or modify any of the foregoing.

8.6 APPEAL

The customer may appeal the determination of the District to the Board of Directors. Such appeal must be presented in writing to the General Manager for presentation to the Board of Directors at one of its regular meetings. The appeal shall state the conditions that have been determined to be a violation and the customer's opinion to the contrary. The action of the Board of Directors shall be final.

8.7 SERVICE RECONNECTION

Any request to reestablish service subsequent to the revocation of a permit and the termination of water, and/or recycled water service shall be in the manner prescribed for initially obtaining service from the District, which may include the collection of a security deposit. However, in addition, the District may, in its discretion, require that an agreement including any special conditions and financial security conditioned upon compliance with the Rules and Regulations be provided in an amount, manner, and for a period of time as determined by the Board of Directors.