



City of San Diego  
Rules and Regulations  
For  
Recycled Water Systems

June 2016

City of San Diego



Public Utilities

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## **SECTION I:**

### **INTRODUCTION**

#### **1.1 BACKGROUND**

The City operates two water reclamation facilities: North City Water Reclamation Plant and the South Bay Water Reclamation Plant. Both plants produce “disinfected tertiary recycled water” which is defined in Title 22 of the State of California Code of Regulations (60301.230 CCR). Title 22 was adopted to ensure proper health protection and specify the treatment degree to match the intended use. Recycled water may be used for a variety of non-potable uses, including but not limited to:

- irrigation of parks, playgrounds and school yards, residential and commercial landscaping, golf courses, and agriculture (ornamental and food crops)
- industrial or commercial cooling or air conditioning
- flushing toilets and urinals
- industrial process water
- fire fighting
- decorative fountains, enhancement of wildlife habitat, and recreational impoundment
- construction purposes, including soil compaction, dust control, and mixing concrete
- freeway and cemetery landscaping

The use of water recycled from municipal wastewater is regulated by the California Regional Water Quality Control Board (RWQCB) under the City’s Master Permits (Order No. 2000-203 and R9-2015-0091). These permits require the City to establish and enforce rules and regulations for recycle water use including governing the design and construction of recycled water use facilities (13523.1 California Water Code).

In 1989, with the City’s adoption of the Water Reclamation Ordinance 0-17327, section 64.0801-64.0808 of the municipal code was added or updated to govern the use and distribution of recycled water in areas that can or may in the future be served by recycled water in lieu of potable water.

#### **1.2 POLICY**

It is the policy of the City that recycled water be used for any purpose approved for recycled water use when it is economically, financially, and technically feasible, as mandated by the San Diego Municipal Code. Use of potable water for non-domestic uses shall be contrary to the City policy, and shall not be considered the most beneficial use of a natural resource and shall be avoided to the maximum extent possible.

The distribution and use of recycled water shall be consistent with the standards and requirements of regulatory agencies for the protection of public health and welfare, and the

preservation of the quality of the environment. Nothing in these rules and regulations is intended to undermine state or federal statutes or regulations.

### **1.3 PURPOSE**

The Rules and Regulations set forth herein pertain to recycled water service provided by the City within the City's service area. These Rules and Regulations establish procedures for the distribution and use of recycled water. Recycled water service from the City is subject to the availability of facilities and adequate capacity in these facilities.

It is the general intent of the City to provide recycled water to all service areas in the City identified in the Water Reclamation and Reuse Conceptual Master Plan for Modifications to the Metropolitan Sewerage System, and subsequent additions, revisions or updates of the plan, herein referred to as "Master Plan". Owners or property identified as being in a class of potential users in the Master Plan within areas for recycled water use shall qualify for a recycled water Use Permit from the City in compliance with these Rules and Regulations.

These Rules and Regulations shall be interpreted in accordance with the purpose, policy, and intent of these Rules and Regulations and the definitions as set forth in Section 2 herein. Insofar as these Rules and Regulations support portions of the California Health & Safety Code, Water Code and Code of Regulations (Title 22 and Title 17), any amendment of these codes, which may be pertinent to these Rules and Regulations, shall be incorporated accordingly.

### **1.4 GOALS**

Recycled water shall be distributed and used in a manner that meets all State, County, and City requirements, including these Rules & Regulations, and which shall achieve the following:

- a. Prevent direct human contact of recycled water through adherence to all applicable rules and regulations and laws.
- b. Prevent cross-connection between recycled and potable water systems which include a strict cross-connection/backflow prevention program.

Because recycled water is not processed to the point that it is acceptable for human consumption, it is important that these Rules and Regulations contain provisions which minimize or eliminate the possible misuse of the recycled water.

## **SECTION 2: DEFINITIONS**

The terms hereinafter set forth, unless otherwise specified, shall have the following meanings:

**AIR-GAP SEPARATION** shall mean a physical break between a supply of pipe and a receiving vessel. The air-gap shall be at least double the diameter of the supply pipe, measured vertically above the flood rim of the vessel, and in no case less than one inch. The design shall be to the satisfaction of the City.

**AMERICAN WATER WORKS ASSOCIATION (AWWA)** shall mean the American Water Works Association California-Nevada Section.

**APPLICANT** shall mean any person, firm, corporation, association, agency or authorized representative who applies for recycled water service under the terms of these Rules and Regulations.

**APPROVED BACKFLOW PREVENTER** shall mean a device installed to protect the potable water supply from contamination by recycled water as approved by California Department of Public Health and the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California (USC), School of Engineering.

**APPROVED USE** shall mean the use of recycled water in a manner, and for such purpose, designated in a user permit issued by the City and in compliance with any and all applicable regulatory agency requirements.

**CAPACITY CHARGE** shall mean a one-time charge determined from the Schedule of Rates of the City, and payable by the customer for obtaining recycled water. The purpose of this charge is for the expansion of recycled water facilities to accommodate future growth.

**CITY** shall mean The City of San Diego.

**CONNECTION FEE** shall mean a charge imposed by the City for establishing or reestablishing recycled water service, including construction and/or installation of offsite facilities.

**CONSTRUCTION USE** shall mean the approved use of recycled water to support construction activities such as soil compaction and dust control during grading.

**CONTRACTOR** shall mean a person, persons, or firm entering into a legal agreement with the owner, customer, or the City for the performance of work on all or any portion of facilities subject to these regulations.

**CROSS-CONNECTION** shall mean any unprotected connection between any part of a potable water system and recycled water system whereby contamination may enter the potable water system, and/or between any part of recycled water system and other sources such as sewers and sludge force mains.

**CUSTOMER** shall mean any person, firm, corporation, association, or agency that holds a valid recycled water Use Permit or agreement.

**COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (DEH)** shall mean the County of San Diego Department of Environmental Health.

**CALIFORNIA STATE WATER RESOURCES CONTROL BOARD DIVISION OF DRINKING WATER** (SWRCB Division of Drinking Water) shall mean the California State Water Resources Control Board Division of Drinking Water.

**DESIGNATED USE AREA** shall mean the area covered by recycled water.

**DEVELOPMENT SERVICES DEPARTMENT** shall mean the City of San Diego's Development Services Department.

**DISCHARGE** shall mean any release or distribution of recycled water to a sewerage system, or storm drain system.

**DOUBLE CHECK VALVE ASSEMBLY (DC)** shall mean an assembly of at least two independently acting check valves including tightly closing shut-off valves on each side of the check valve assembly and test cocks available for testing the Water tightness of each check valve.

**DUAL PLUMBED SYSTEM** shall mean systems that utilize separate piping systems for recycled water and potable water within a facility and where the recycled water is used for either serving plumbing outlets within a building or serving outdoor landscape irrigation at individual residences.

**GPM** shall mean the rate of recycled water delivery in gallons per minute.

**GRAYWATER** shall mean untreated wastewater other than toilet and/or urinal waste and kitchen sink waste.

**HCF** shall mean the unit of water quantity measurement delivered to the user in hundreds of cubic feet.

**INDUSTRIAL WATER** shall mean recycled water used in industrial facilities.

**INDIVIDUAL RESIDENCES** (see DUAL PLUMBED SYSTEM)

**INSPECTOR** shall mean any person authorized by the City to perform inspections of either onsite or offsite facilities or areas prior to construction, during construction, after construction, and during operation.

**KILL SERVICE** shall mean discontinue and cap service at main line and remove the meter.

**LANDSCAPE STANDARDS** shall mean the Landscape Standards of the City of San Diego.

**MUNICIPAL CODE** shall mean the City of San Diego Municipal Code.

**NON-POTABLE WATER** shall mean water that has not been treated for, or is not acceptable for, human consumption in conformance with the State and local water standards, such as recycled water and raw water.

**NON-RESTRICTED RECREATIONAL IMPOUNDMENT** shall mean an impoundment of recycled water in which no limitations are imposed on body-contact water sport activities.

**OFFSITE FACILITIES** shall mean facilities under the control of the City including, but not limited to, recycled water transmission mains, recycled water pipelines, reservoirs, pumping stations, treatment plants, and other appurtenances and property. For recycled water service offsite facilities shall be those upstream of the point of connection with the customer's onsite facilities located at and starting at the downstream end of the meter tailpiece.

**ONSITE FACILITIES** shall mean the facilities under the control of the applicant, owner, or customer including, but not limited to, irrigation and dual plumbed systems. For recycled water service, the onsite facilities shall be those downstream of the recycled water service connection, which shall normally be the downstream end of the meter tailpiece.

**OPERATIONS PERSONNEL** shall mean any employee of the user, owner, or customer whether permanent or temporary, or any contracted worker whose regular or assigned work involves the supervision, operation, or maintenance of equipment, facilities, or a system using recycled water.

**ORNAMENTAL WATER FEATURES** shall mean fountains and reflecting ponds.

**PONDING** shall mean the retention of recycled water on the surface of the ground or other man-made surfaces, including the designated use area, for a period of time following the cessation of an approved recycled water use activity such that a hazard or potential hazard to public health results.

**POTABLE WATER** shall mean water that is pure, wholesome, and suitable for human consumption, and which conforms to the latest edition of the United States Public Health Service Drinking Water Standards, the California Safe Drinking Water Act, and any other applicable standards.

**PUBLIC UTILITIES DEPARTMENT** shall mean Public Utilities Department of the City of San Diego.

**RECLAIMED WATER** is also known as recycled water. (See Recycled Water)

**RECORD DRAWINGS** shall mean approved drawings that correctly show the completed onsite facilities and/or offsite facilities as constructed or modified. These drawings shall show all potable water, recycled water and sewer lines, and other utility systems.

**RECYCLED WATER (RW)** shall have the definition set forth in Title 22, Division 4 of the California Code of Regulations and shall mean water which, as a result of treatment of wastewater, is suitable for a direct beneficial use or a controlled use that otherwise would not occur. Specifically excluded from this definition is gray water.

**RECYCLED WATER DISTRIBUTION MAINS** shall mean recycled water pipelines and appurtenances acquired or constructed and owned by the City, and used for the conveyance of recycled water between the recycled water transmission mains and the recycled water service connections.

**RECYCLED WATER FACILITIES** shall mean systems, structures and appurtenances, etc., used in the treatment, storage, pumping, transmission and distribution of recycled water.

**RECYCLED WATER PROGRAM** shall mean the City of San Diego Public Utilities Department, Long-Range Planning and Water Resources Division, Recycled Water Program (RW Program)

**RECYCLED WATER SERVICE CONNECTION** shall mean the point of connection (POC) of the customer's recycled water line with the recycled water service line of the City, which shall normally be the downstream end of the recycled water meter tailpiece.

**RECYCLED WATER SERVICE LINES** shall mean recycled water distribution pipelines and appurtenances acquired or constructed and owned by the City, and used for the conveyance of recycled water between the recycled water distribution mains and the individual recycled water service connections.

**RECYCLED WATER SITE SUPERVISOR** shall mean a person designated and authorized by the user, owner, or customer to operate the onsite facilities and irrigation systems and be responsible for the application of the guidelines, criteria, and standards of these Rules and Regulations. The designated Site Supervisor shall be certified to operate and maintain the onsite facilities and irrigation system, and to assume the responsibilities outlined in Section 6.2.2 by completing a Recycled Water Site Supervisor class. Certification classes are offered by the City of San Diego.

**RECYCLED WATER SYSTEM STANDARDS** shall mean Recycled Water System Standards and Guidelines of the City of San Diego (Book 7)

**RECYCLED WATER TRANSMISSION MAINS** shall mean major recycled water pipelines and appurtenances acquired or constructed and owned by the City, and used for the conveyance of recycled water between the water reclamation plant and pump station, reservoir, and/or the recycled water distribution mains.

**REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE (RPPD)** shall mean a backflow preventer incorporating not less than two check valves, and automatically operated differential relief valve located between the two check valves, a tightly closing shut-off valve on each side of the check valve assembly, and equipped with necessary test cocks for testing.

**REGULATORY AGENCIES** shall mean those public entities legally constituted by Federal, State, County, and City statutes to protect public health and safety and water quality.

**RULES AND REGULATIONS** shall mean these City of San Diego Rules and Regulations for Recycled Water Systems.

**RUN-OFF** shall mean the movement of recycled water beyond the boundaries of the designated use area along the ground surface or man-made surfaces including, but not limited to, pedestrian walkways, streets, playground surfaces, grassy slopes, and drainage courses.

**SEPARATION** shall mean the horizontal and/or vertical distance between a recycled water pipeline and a parallel potable water pipeline, sewer pipeline, or a sludge force main. The separation shall be the clear outside-to-outside distance between the pipelines in question.

**SERVICE AREA** shall mean all areas identified for recycled water use in the Water Reclamation and Reuse Conceptual Master Plan or the Recycled Water Distribution Master Plan, including all subsequent revisions/updates for use of recycled water within greater San Diego.

**UNAUTHORIZED DISCHARGE** shall mean any release of recycled water that violates these Rules and Regulations or any applicable Federal, State, County, or City statutes, regulations, ordinances, contracts or other requirements.

**USE PERMIT (Recycled Water Use Permit)** shall mean a permit issued by the City to a recycled water service applicant after the satisfactory completion of the service application procedures set forth in these Rules and Regulations. This permit constitutes a service agreement which legally binds the user to all conditions of these Rules and Regulations.

**USER (Recycled Water User)** shall mean any person, group, firm, partnership, corporation, association or agency approved to use recycled water by having been issued a Use Permit and having plans approved by the City.

**WASTEWATER** shall mean a combination of water and water-carried wastes, whether treated or untreated, discharges into or permitted to enter a public sewer.

## **SECTION 3: RECYCLED WATER SERVICE REQUIREMENTS**

### **3.1 GENERAL**

The City shall provide recycled water service in accordance with these Rules and Regulations to all areas identified in the Water Reclamation Master Plan and subsequent updates, additions, revisions, or amendments for the use of recycled water, as and when such recycled water becomes available.

### **3.2 SERVICE CONDITIONS**

The City shall control and schedule recycled water distribution to customers. The application for recycled water service and the use of recycled water by any customer shall be subject to all the terms and conditions of the State, County, and City, including these Rules and Regulations and the California Code of Regulations Title 17 and Title 22.

### **3.3 APPLICATION PROCEDURE**

#### **3.3.1 Filing Application for Recycled Water Service**

An applicant meeting the requirements for recycled water service shall file an application for recycled water use with the Public Utilities Department, Long-Range Planning and Water Resources Division, Recycled Water Program, on a standard form designated by the City. The application may be picked up at City of San Diego Public Utilities Offices at 525 B Street, Suite 300, San Diego, CA 92101 or may be downloaded from Public Utilities Website, “The Steps to Getting Connected to Recycled Water” website link:

<http://www.sandiego.gov/water/recycled/switching/steps.shtml>

#### **3.3.2 Compliance of Application with Regulatory Requirements**

The applicant for recycled water shall agree to comply with the requirements of these Rules and Regulations and any and all applicable State, County, and City statutes, ordinances, regulations and other requirements.

#### **3.3.3 Application Fees and Other Charges**

Application fees, deposits, meter and/or services fees, cross-connection test fees and capacity charges (if applicable) shall be paid in accordance with the schedule of rates of the City and shall be subject to all terms and conditions of these Rules and Regulations.

### **3.4 SUBMITTALS**

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

### 3.4.1 Customer's Plans and Specifications

Plans and specifications prepared by an on-site system designer, civil engineer, a mechanical engineer or a landscape architect registered with the State of California, for the construction of onsite recycled water facilities shall be submitted to the City for review and approval. The plans shall delineate the proposed recycled water service area; location, size and type of all recycled water service connections and onsite facilities; layout of existing potable water pipelines and facilities including any areas in which recycled water must be specifically excluded; and offsite potable and recycled water mains, services and points of connection.

### 3.4.2 Exterior Drinking Fountains and Potable Water Hose Bibs

Exterior drinking fountains and potable water hose bibs shall be shown and called out on the plans. If no exterior drinking fountains or other public facilities are present in the design area, then it shall be specifically stated on the plans that none exist.

### 3.4.3 Signage

All use areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public in a size no less than 4 inches high by 8 inches wide that include the following wording: "RECYCLED WATER – DO NOT DRINK" in English and Spanish. Each sign shall also display an international "do not drink" symbol. Although the color of signage is not specified, the preferred color is Pantone 512 (wording per Title 22).

Locations of signs must include, but not limited to, entrance to parking, entrance to buildings, and sitting areas. Signs should be placed at every corner of property adjacent to streets. All rooms in commercial, industrial, and institutional occupancies using recycled water for water closets or urinals shall be identified with signs.

### 3.4.4 Information Required for Recycled Water Irrigation Systems

If the onsite facilities include a landscape irrigation system, data for the materials used in the irrigation system shall be included on the plans.

## 3.5 RECYCLED WATER NOTES FOR INCLUSION ON CUSTOMER PLANS

Provide the following notes, as applicable, on the recycled water improvement and irrigation plans under the heading "City of San Diego Recycled Water Notes":

1. TWO WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION ON SITE IMPROVEMENTS, CONTRACTOR SHALL NOTIFY CITY OF SAN DIEGO, PUBLIC UTILITIES DEPARTMENT, RECYCLED WATER PROGRAM AT (619) 533-4259.

2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF SAN DIEGO RULES AND REGULATIONS FOR RECYCLED WATER USE AND DISTRIBUTION WITHIN THE CITY OF SAN DIEGO AND THE COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH REQUIREMENTS.
3. ALL BACKFLOW PREVENTER INSTALLATIONS AND LOCATIONS SHALL BE SUBJECTED TO APPROVAL BY THE CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT.
4. ALL PUBLIC FACILITIES SUCH AS COMFORT STATIONS, DRINKING FOUNTAINS, ETC. SHALL BE PROTECTED FROM SPRAY AND/OR MISTING BY RECYCLED WATER.
5. NO PONDING, RUN-OFF OR OVER-SPRAY IS PERMITTED. ADJUST ALL SPRINKLER HEADS TO PREVENT OVER SPRAYING ONTO SIDEWALKS, STREETS, AND PRIVATE LOTS.
6. HOSE BIBS ON RECYCLED WATER SYSTEMS ARE PROHIBITED IN PUBLIC AREAS. ALL POTABLE HOSE BIBBS ONSIGHT MUST BE PROTECTED BY A HOSE BIBB VACUUM BREAKER
7. CROSS-CONNECTION BETWEEN RECYCLED WATER LINES AND POTABLE IS STRICTLY PROHIBITED.
8. QUICK COUPLING VALVES USED IN RECYCLED WATER SYSTEMS SHALL CONFORM TO THE FOLLOWING:
  - A. A TYPE APPROVED FOR RECYCLED WATER USE WITH A NORMAL WORKING PRESSURE OF 150 P.S.I.
  - B. RECYCLED WATER QUICK COUPLER MUST BE DIFFERENT FROM POTABLE WATER QUICK COUPLER VALVES.
  - C. IN ORDER TO PREVENT UNAUTHORIZED USE, THE VALVE SHALL BE OPERATED ONLY WITH A SPECIAL COUPLER KEY WITH THAT DIFFERS FROM THE POTABLE KEY FOR OPENING AND CLOSING THE VALVE.
  - D. THE COVER SHALL BE PERMANENTLY ATTACHED TO THE QUICK COUPLING VALVES. IT SHALL BE PURPLE RUBBER OR VINYL.
  - E. LOCKING COVERS ARE REQUIRED.
9. NO SUBSTITUTION OF THE PIPE MATERIALS WILL BE ALLOWED WITHOUT PRIOR APPROVAL BY THE CITY OF SAN DIEGO.

10. INSTALL APPROVED METALLIC BACKED AND STENCILED WARNING TAPE OVER ALL PRESSURE RECYCLED WATER LINES. STENCIL AND COLOR CODE (PURPLE PANTONE 522) ALL IRRIGATION PIPE. ORIENT THE STENCILING TO THE TOP OF THE TRENCH.
11. PROVIDE A MINIMUM OF AT LEAST 18 INCHES OF COVERING OVER ALL WIRING AND PIPING.
12. OPERATE THE IRRIGATION SYSTEM ONLY BETWEEN 9:00 PM AND 6:00 AM, UNLESS THE CERTIFIED SITE SUPERVISOR IS PRESENT AT THE SITE DURING THE IRRIGATION PERIOD.
13. WHEN POTABLE WATER LINES AND RECYCLED WATER LINES CROSS, THE RECYCLED LINE SHALL BE INSTALLED WITHIN A PROTECTIVE SLEEVE. THE SLEEVE SHALL EXTEND 10 FEET FROM EACH SIDE, FROM THE CENTER LINE OF POTABLE LINE, FOR A TOTAL OF 20 FEET.
14. MAINTAIN A 10 FOOT HORIZONTAL SEPARATION BETWEEN POTABLE WATER AND RECYCLED WATER OR SEWER LINES. INSTALL SEWER LINE BELOW RECYCLED WATER LINE AND RECYCLED WATER LINE BELOW THE POTABLE WATER LINE.
15. PROVIDE A MINIMUM OF 12 INCHES OF VERTICAL SEPARATION BETWEEN POTABLE/RECYCLED WATER/SEWER.
16. THE SITE IRRIGATION SYSTEMS AS SHOWN ON THESE DOCUMENTS WILL UTILIZE POTABLE WATER UNTIL SUCH TIME AS THE CITY OF SAN DIEGO MAKES RECYCLED WATER AVAILABLE TO THE SITE.
17. INSTALL PURPLE COLORED PANTONE #522 MATERIAL FOR ALL ABOVE GROUND IRRIGATION FACILITIES:
  - A. VALVE AND OTHER GRADE BOXES – INTEGRAL COLOR
  - B. BACKFLOW DEVICES – PAINTED TWO COATS OF ENAMEL
  - C. SPRINKLER HEADS – INTEGRAL COLOR PLASTIC
18. TAG ALL VALVES AND OTHER BELOW GRADE APPURTENANCES WITHIN BOXES WITH PERMANENT RECYCLED WATER LABELS IN BOTH ENGLISH AND SPANISH THAT IDENTIFY RECYCLED WATER IN USE (“RECYCLED WATER – DO NOT DRINK”). ATTACH THE LABEL WITH EITHER STAINLESS STEEL WIRE OR SELF LOCKING PLASTIC TIES.

19. THE REQUIRED INITIAL CROSS-CONNECTION TEST SHALL BE PERFORMED BY THE CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT AND MONITORED BY THE COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH. COPIES OF INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTING PARTY.
20. THE DESIGN LOCATIONS PROPOSED FOR RECYCLED WATER “DO NOT DRINK” SIGNS SHALL BE CALLED OUT ON THE PLANS.
21. AN ANNUAL CROSS-CONNECTION INSPECTION WILL BE DONE BY THE CITY OF SAN DIEGO. COPIES OF THE INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTION PARTY. A CROSS-CONNECTION TEST WILL BE PERFORMED EVERY FOUR YEARS.
22. PRIOR TO CONVERSION TO RECYCLED WATER, AN ON-SITE SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH PLUMBING SYSTEMS WITHIN PROPERTY, WITH THE BASIC SPECIFIC REQUIREMENTS OF RECYCLED WATER SYSTEMS. THE DESIGNATED SITE SUPERVISOR SHALL ATTEND AN APPROVED CLASS FOR RECYCLED WATER SITE SUPERVISORS. COPIES OF THE SITE SUPERVISOR’S CERTIFICATE, WITH A 24 HOUR CONTACT NUMBER SHALL BE PROVIDED TO THE CITY OF SAN DIEGO AND THE COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.

IN CASE OF EMERGENCY CONTACT: \_\_\_\_\_  
 AT \_\_\_\_\_

AFTER HOURS CONTACT: \_\_\_\_\_  
 AT \_\_\_\_\_

23. A PHYSICAL SEPARATION SHALL BE PROVIDED BETWEEN ADJACENT AREAS IRRIGATED WITH RECYCLED WATER AND POTABLE WATER. SEPARATION SHALL BE PROVIDED BY DISTANCE, CONCRETE MOW STRIPS OR OTHER APPROVED METHODS.
24. CALL OUT ON THE PLANS IF THERE ARE ANY DRINKING FOUNTAINS AND/OR DESIGNATED OUTDOOR EATING AREAS ON THE SITE.
25. ALL PUBLIC AND PRIVATE POTABLE WATER MAINS INCLUDING FIRE MAINS AND ANY WATER WELLS AND WATER SOURCES WITHIN THE RECYCLED WATER PROJECT SHALL BE SHOWN ON THE PLANS.
26. EDUCATE ALL MAINTENANCE PERSONNEL ON A CONTINUOUS BASIS OF THE PRESENCE OF RECYCLED WATER. PERSONNEL MUST BE

INFORMED THAT RECYCLED WATER IS MEANT FOR IRRIGATION PURPOSES ONLY, AND IS NOT APPROVED FOR DRINKING PURPOSES, HAND WASHING, CLEANING OF TOOLS, ETC. GIVEN THE HIGH TURNOVER RATE OF EMPLOYEES IN THE LANDSCAPE INDUSTRY, IT IS IMPORTANT THAT THIS INFORMATION BE DISSEMINATED ON AN ALMOST DAILY BASIS.

- 27. PRIOR TO INSTALLATION OF ANY RECYCLED WATER WORK, IT MUST BE INSPECTED BY RECYCLED WATER PROGRAM PERSONNEL. THE INITIAL CROSS-CONNECTION TEST SHOULD BE PERFORMED USING POTABLE WATER WITH AN APPROVED BACKFLOW DEVICE.
- 28. ALL INITIAL IRRIGATION SHALL USE POTABLE WATER. NO RECYCLED WATER SHALL BE USED UNTIL THE SITE HAS PASSED THE CROSS-CONNECTION TEST AND HAS BEEN APPROVED BY THE CITY OF SAN DIEGO AND COUNTY OF SAN DIEGO.

**Declaration of Responsible Charge**

I hereby declare that I am the licensed design professional of the work for this project and that I have exercised responsible charges over the design of this project as defined in Section 6703 of the Business and Professions Code and the design is consistent with current standards.

I understand that the check of project drawings and specifications by the City and San Diego County DEH is confined to a review only and does not relieve me, as the licensed design professional of the work, of my responsibilities for project design.

Firm Name \_\_\_\_\_

Responsible Party Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_ Email \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

Registration Number \_\_\_\_\_ Expiration Date \_\_\_\_\_

**3.6 INSPECTIONS**

Following plan approval and prior to the start of construction, a pre-construction inspection must be scheduled with the City. Call (619) 533-4259 to schedule. Construction cannot begin until a pre-construction inspection has been made.

### 3.6.1 Installation Inspection

In addition to other inspections performed by building and plumbing inspectors, piping and devices shall be kept exposed until the recycled water cross-connection control inspection is completed.

### 3.6.2 Initial Inspection and Shutdown Test

Prior to the use of recycled water, an initial inspection, hydrostatic pressure test, and shutdown test will be performed by the City subject to approval by the County DEH. Copies of the test reports will be forwarded to the applicant upon request.

### 3.6.3 Annual Inspection

An annual cross-connection inspection will be performed by the City subject to approval by the County DEH. Copies of the inspection reports will be forwarded to the applicant upon request.

### 3.6.4 Quadrennial Shutdown Test

A quadrennial cross-connection shutdown test will be done by the City Of San Diego Public Utilities Department. **Dual Plumbed** Copies of the test reports will be forwarded to the applicant upon request.

## 3.7 RECYCLED WATER USE PERMIT

A recycled water use permit shall be issued upon approval by the City, the County DEH, and/or the State Water Resources Control Board Divisions of Drinking Water. A recycled water use permit shall incorporate all the provisions of these Rules and Regulations by express reference, and any additional requirements prescribed by the City, to protect public health and welfare.

The use permit shall be effective only after all construction of recycled water facilities has been completed, tested, inspected, and final acceptance granted by the City.

The use permit shall specify all allowable uses of recycled water and all restrictions thereon. A recycled water use permit shall be renewed annually. The City must be notified in writing and reserves the right to suspend or terminate the permit or modify its terms and conditions if any of the following occurs:

1. A change of the owner or tenant of the property covered by the permit.
2. A change in the use of the property covered by the permit.
3. A change in the qualitative characteristics of recycled water.
4. A violation of these Rules and Regulations and other applicable regulations.
5. Site Supervisor Certification lapses.

## **3.8 ESTABLISHING SERVICE**

### **3.8.1 Request for Service Connection**

The request for service connection shall be accompanied by all required fees for installation and connection as indicated in the current schedule of rates and as appropriate for the size and type of service.

### **3.8.2 Request for Service Start-Up**

Following final acceptance of the onsite facilities by the City, the customer shall request recycled water service start-up. The request for start-up shall be accompanied by any outstanding cash payments as per the current schedule of rates in addition to those indicated in Section 3.3.3.

### **3.8.3 Temporary Use of Potable Water**

At the discretion of the City, potable water may be made available on a temporary basis, until recycled water is made available. Before the customer receives temporary potable water and prior to commencement of recycled water service, an inspection of the onsite facilities shall be conducted by the City to verify the facilities have been maintained and are in compliance with the recycled water Rules and Regulations. An approved type of backflow protection must be used in any connection for temporary potable water. Upon verification of compliance, the customer shall request service start-up.

### **3.8.4 Non-registering Recycled Water Meter**

Should a recycled meter be identified as non-functioning, non-registering, or out of service an immediate shutdown of the recycled service to the meter shall be executed. A notice shall be sent to the customer within 24 hours. Re-connection of service shall require the same procedure as a new service per these Rules and Regulations and all applicable State, County, City, and other applicable regulations.

### **3.8.5 Wholesale Service**

Wholesale service to other water agencies (i.e. City of Poway, Olivenhain, and Otay) downstream of the City of San Diego point-of-connection (POC) requires those agencies to enforce all State, County, and other applicable regulations on their “retail” customers. Upstream of the wholesale service POC shall be the responsibility of the City of San Diego per these Rules and Regulations and all applicable Federal, State, County, and other applicable regulations.

### **3.9 CONDITIONS FOR RECYCLED WATER SERVICE**

Permits for recycled water service and any connections for service made, as provided in the permit issued under these Rules and Regulations, shall be subject to the following conditions:

#### **3.9.1 Control of Facilities (Liability)**

- a. The City shall have control of and shall maintain and repair recycled water service lines and meters. The customer shall repair and maintain in good working condition the recycled water service connections and onsite facilities. The City shall be entitled to inspect and test all connections and onsite facilities in the manner in these Rules and Regulations.
- b. The City and its agents shall be indemnified and held harmless by the permit holder from and against all claims, damages, losses or expenses arising from the use of recycled water, and/or during the testing and inspection of a recycled water user site under the permit or from the use of facilities by which recycled water is conveyed.
- c. The customer shall, at all times, keep the meter assembly and the area around the meter, or other facilities free from deposits of oil, toxic, hazardous or contaminated liquid or waste, trash, soil, building materials or substances, objects, or obstructions. The customer shall not allow or permit meter boxes, or other facilities to become obstructed or obscured by trees, shrubs, plants or in any manner impede their use or access to them. If such substances, objects, or obstructions are not cleaned and removed by the customer, the cleaning and removal shall be done by the City at the expense of the customer after a reasonable time of notification.

#### **3.9.2 Extension of Distribution Mains**

The customer shall pay for all onsite facilities, including their installation, as well as for recycled water service lines and extension of recycled water transmission and distribution mains in order to provide recycled water service to the customer.

#### **3.9.3 Prohibition of Changes**

The customer shall not make any changes in or additions to the recycled water system or the potable system in the recycled water use area. Any changes or alterations to existing onsite facilities, whether the result of intended or unintended damage, shall be reported in writing immediately to the City. The recycled water inspectors shall be notified immediately at (619) 533-4259.

#### 3.9.4 Services to Common Areas

The City reserves the right to supply recycled water to contiguous areas of a single ownership through a single recycled water service connection.

Common areas owned or operated by home owner associations or similar cooperatives should have only one service connection whenever it is practical, and will be operated as a single ownership. A recycled water service connection and water meter shall not be used to supply property not covered by the permit authorizing the connection.

#### 3.9.5 Subdividing an Approved Service Area

- a. When a property provided with a recycled water service connection and water meter is subdivided, such connection and meter shall be considered as serving a lot or parcel of land on which the meter is located. Additional recycled water distribution mains and/or service lines will be required for all subdivided areas in accordance with these Rules and Regulations, unless the sub divider provides covenants, conditions, and restrictions (CC&R's) properly recorded with the County Recorder for the operation of onsite recycled water facilities serving more than one lot, and also provides easements for recycled water distribution mains and/or service lines or shows easement locations in the CC&R's.
- b. All recycled water used on any premise where a meter is installed must pass through the meter. Customers shall be charged for all recycled water passing through the meter.
- c. Every recycled water service connection and meter assembly shall include a curb cock or wheel valve, as approved by the City, on the inlet side of the meter, which shall be used exclusively by the City for controlling the recycled water supply through the recycled water service line. If the curb cock or wheel valve is damaged by the customer's use, repair and/or replacement by the City shall be at the customer's expense.
- d. Each customer shall restrict the use of recycled water to those uses set forth in the Use Permit for recycled water services approved by the City.

#### 3.9.6 Temporary Discontinuation of Recycled Water Service

By reason of circumstances beyond the control of the City, or in order to protect the facilities of the City, or for the protection of public health, safety and welfare of the residents or property owners of the City, recycled water service may be terminated under the conditions set forth below:

- a. On a temporary basis at any time the recycled water, at the terminal point of the City's water reclamation plant takeoff, does not meet the requirements of the regulatory agencies, including but not limited to those prescribed by the California

Code of Regulations, Title 22. Recycled water service would, in such case, be renewed at such time that recycled water at the terminal point of the water reclamation plant would again meet the requirements of the regulatory agencies or at such time that the City would supplement the recycled water system from the potable or disinfected raw water system.

- b. When the City determines that a water shortage exists or is threatened which prevents further recycled water service.
- c. When a meter is found to be out of service or is not registering, the system will be shut down until the meter is serviced and inspected.

#### 3.9.7 Interim Water Service

Potable water may be provided via a potable water meter which is connected to a fire hydrant on an interim basis if requested by a customer provided the following conditions are met:

- a. Water is provided to the customer for no longer than twelve (12) months.
- b. A Reduced Pressure Principal Assembly is connected to the outlet side of a fire hydrant meter.
- c. “Do not drink” signage (per standard sign detail) is posted.
- d. All above ground, exposed facilities shall be consistently color-coded (purple) and marked to differentiate recycled water facilities from potable water and/or wastewater facilities, as per Recycled Water System Guidelines Book 7 Standard Drawings of the City.

#### 3.9.8 Conditions of Pressure and Service

Pressure and service shall be provided on an as available basis, at the location of the customer’s meter. The Public Utilities Department Director shall state the desirable pressure of the system in the department’s design guide. All customers shall hold the City harmless from any and all damages and liabilities caused in whole or in part by pressure conditions, water quality variations, or interruptions in service. It shall be the owner’s responsibility to install booster pumps or increase pressure if necessary.

### **3.10 SIZE AND LOCATIONS OF SERVICE CONNECTIONS**

The City reserves the right to determine the size and location of recycled water service lines, the service connections, and the meters. The City shall also have the right to determine the kinds and sizes of backflow prevention devices and any and all other appurtenances to the service.

### **3.11 ILLEGAL CONNECTIONS**

No person shall make any connection to recycled water facilities of the City without a permit from the City. Penalties for violations may be assessed according to Section 9 of these Rules and Regulations.

### **3.12 CROSS-CONNECTION PREVENTION**

#### **3.12.1 Purpose**

The primary purpose of a cross-connection program is to protect the potable water system from possible contamination by prohibiting and preventing cross-connections between the potable water system and the recycled water system, in accordance with Title 17, Chapter 5 of the California Code of Regulations. The secondary purpose is to protect the recycled water system from other contaminants. The following provisions are in additions to, and not in lieu of, the controls and requirements of other regulatory agencies, such as the County of San Diego DEH and State Water Resources Control Board Division of Drinking Water.

#### **3.12.2 Backflow Prevention**

Regulations governing backflow prevention devices are intended to protect the City's potable water supplies and are not intended to protect users from potential hazards of cross-connections in the user's onsite facilities.

City approved backflow prevention for the potable water system shall be provided by the user in accordance with the specifications of the Public Utilities Department. Provisions, installation, maintenance and inspection of backflow prevention devices shall be the sole responsibility and duty of the customer, and at customer's expense. Inspection of backflow prevention devices shall be done at least once a year, or more often in those instances where successive inspections indicate repeated failures. These devices shall be inspected, repaired, overhauled or replaced at the expense of the customer whenever they are found to be defective. Records of such tests, repairs, and overhauls shall be kept by the City, and such records shall be made available to any concerned regulatory agency on request.

The installation and inspection of backflow prevention devices shall be done by a certified inspector at the expense of the customer. The customer shall submit original inspection certificates as proof of compliance to the City Public Utilities Department, Cross Connection Control Section, 9192 Topaz Way, MS. 901, San Diego, CA 92123. All inspection and testing shall be done to the satisfaction of the City and the regulatory agencies concerned.

### 3.12.3 Type of Protection

The type of protection shall be provided to prevent backflow into the potable water system and shall be commensurate with the degree of hazard that exists on the consumer's premises. The type of protective device that may be required (listed in an increasing level of protection) includes: Double check Valve Assembly-(DC), Reduced Pressure Principle Backflow Prevention Device-(RP) and an air gap Separation-(AG). The water user may choose a higher level of protection than required by the water supplier. The minimum types of backflow protection required to protect the water supply with various degrees of hazard, are given in Table 1. Situations not covered in Table 1 shall be evaluated on a case-by-case basis and the appropriate backflow protection shall be determined by the City of San Diego and County DEH.

TABLE 1  
TYPE OF BACKFLOW PROTECTION REQUIRED

Degree of Hazard	Minimum Type of Backflow Prevention
<b>Hazardous Substances</b>	
Premises where there are irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected.	RP
<b>Auxiliary Water Supplies</b>	
Premises where there is an unapproved auxiliary water supply which is interconnected with the public water system.	AG
Premises where there is an unapproved auxiliary RP water supply and there are no interconnections with the public water system.	RP
<b>Recycled water</b>	
Premises where the public water system is used to supplement the recycled water supply.	AG
Premises where recycled water is used, and there is no interconnection with the potable water system.	RP
Residences using recycled water for landscape irrigation as part of an approved dual plumbed use area.	DC

#### 3.12.4 User's Designated Recycled Water Site Supervisor

The user's designated Recycled Water Site Supervisor, whose qualifications and responsibilities are discussed in Section 6.2.2, shall be responsible for the prevention of any cross-connections on the property. In the event of a cross-connection to the potable water system, the user shall immediately shut off the main recycled water supply valve and depressurize the recycled water system to prevent further mixing with the potable supply. The user shall also immediately advise the City of the occurrence of the cross-connection. The County and State health officers shall be immediately advised by the City so that appropriate measures may be taken to control any contamination or pollution.

The user shall assume all responsibilities for the prevention of cross connections between the on-site facilities and any potable water supply, and shall indemnify and hold the City harmless from and against any claim of damage or loss which is caused or is alleged to have been caused, in whole or in part, by cross-connections of on-site facilities. Notwithstanding this covenant, the user shall be subject to the rules pertaining to the use of recycled water as otherwise provided herein, including but not limited to those allowing the City or County DEH to inspect and approve all on-site recycled water facilities.

### **3.13 CONVERSION TO/FROM RECYCLED WATER SERVICE**

#### 3.13.1 Conversion to Recycled Water Service

When a user proposes the conversion of any existing potable water irrigation system to a recycled water irrigation system, a comprehensive investigation of the proposed recycled water system shall be performed for the City at the expense of the user. On a case-by-case basis, the City and the County DEH shall review the as-built drawings, and investigation reports, and determine the measures necessary to bring the existing system into full compliance with these Rules and Regulations. No existing potable water facilities shall be converted to, or incorporated into, the recycled water system without proper testing and approval by the City and/or other regulatory agencies. Threshold valves are required for potable water at the building in order to isolate during testing. A bypass is required downstream of the threshold valve for testing purposes. The City or the County of San Diego may deny issuance of recycled water user's permit if either determines that the proposed conversion cannot be made safely.

#### 3.13.2 Conversion from Recycled Water Service

If, due to onsite failure of the recycled water system, or use violations, the City determines necessary to convert the onsite facilities from recycled water supply to a potable water system, or other water supply, it shall be the responsibility of the user to pay all costs for such conversion, unless determined otherwise by the City. Conversion costs shall include the following:

#### 3.13.2.1 Isolation of the Recycled Water Supply

Service shall be killed by property owner's contractor at the recycled water main and meter shall be removed by the City, in a manner approved by the City.

#### 3.13.2.2 Installation of Backflow Prevention Device

The user shall install approved backflow devices on all potable water, or other water meter connections.

#### 3.13.2.3 Removal of Existing Recycled Water Identifying Materials

The user shall be responsible for removal and replacement of all materials identifying the site as recycled water use.

#### 3.13.2.4 Hydraulic Testing and Disinfections

The user shall be responsible for hydraulic testing and disinfection of the converted pipeline.

#### 3.13.2.5 Notification

The user shall notify all personnel involved with the operation of the abandoned recycled water service.

#### 3.13.2.6 Warning Labels and Signs

The user shall be responsible for the removal of all warning signs and labels.

#### 3.13.2.7 Installation of Potable Water System

Provisions and installation of all potable water lines and facilities and any capacity fees due, as provided for in these Rules and Regulations shall be the responsibility of the user.

### **3.14 AUTHORIZED USES OF RECYCLED WATER**

The uses of recycled water may include, but are not limited to: irrigation of parks; playgrounds and school yards; residential and commercial landscaping; golf courses and agriculture (ornamental and food crops); industrial or commercial cooling or air conditioning; freeway and cemetery landscaping; decorative fountains; construction purposes including soil compaction, dust control, and mixing concrete; industrial process water; toilet and urinal flushing; firefighting; enhancement of wildlife habitat; and recreational impoundment. Each such use must be considered for approval by the City on a case-by-case basis. Determinations as to specific uses to be allowed shall be in accordance with the standards set forth in Title 22, Division 4 of the California Code of

Regulations and with the intent of this ordinance to preserve the public health. The City may, at its discretion, set forth specific requirements as conditions to providing such services and/or require specific approval from the appropriate regulatory agencies. The use of recycled water in swimming pools is not permitted.

### **3.15 DELIVERY AND DISTRIBUTION OF RECYCLED WATER**

The City will control the delivery of recycled water to minimize interruptions of service. Temporary shutdown of the recycled water system may be necessary for purposes including, but not limited to, maintenance and upgrades to the system as well as for reasonable safeguards in relation to public health.

### **3.16 TEMPORARY/EMERGENCY CONNECTIONS TO THE POTABLE WATER SYSTEM**

If, in the opinion of the City an emergency exists, or is threatened to occur, whereby all or a portion of the water in the recycled water system is not available, the City may approve a temporary connection to the potable water system. Such a temporary connection shall be made in accordance with these Rules and Regulations. The decision to allow temporary service to the potable water system shall be at the sole discretion of the City. Temporary potable water connections shall be provided by the customer at his/her expense.

Before such temporary connection is made, the portion where potable water is to be supplied shall be isolated by an air gap separation from the remainder of the recycled water system. This isolation shall occur at either individual services or on the offsite system, as determined by the City. An approved backflow prevention device shall be installed on the potable water lines in accordance with Section 3.12 of these Rules and Regulations and all applicable regulations of the governing agencies. The emergency connection shall be removed before connection is re-established to the recycled water system. Re-establishment of recycled water service must be inspected and approved by a City Cross-Connection Control inspector prior to resuming delivery of recycled water.

On a case by case basis, the City and all related regulatory agencies may approve a temporary potable water connection for a customer's recycled water system used for irrigation without an air gap. The temporary connection shall be designed to allow one water source to serve the customer's system at any given time. An approved backflow device and meter shall be installed on the potable water service and the recycled water service prior to the customer's connection, in accordance with Section 3.10. At no time shall the potable water system be connected to a system simultaneously served by a non-potable source.

### **3.17 ADDITIONAL RESTRICTIONS ON THE USES OF RECYCLED WATER**

#### **3.17.1 Run-Off and Ponding**

- a. The onsite facilities shall be designed to meet the peak moisture demand of all plant materials used within the design area and to apply irrigation water in a manner compatible with the infiltration rates of the soil types within the approved use area.

Conditions that directly or indirectly cause a run-off of recycled water outside of the approved recycled water use areas; cause a ponding of recycled water; or permit windblown spray to pass outside of the approved use area, whether by design, construction practice, or system operations, shall be eliminated or controlled to the greatest extent possible with the use of the best practicable technology or methodology.

- b. The use of recycled water shall be limited to those uses permitted by State law, and to those uses approved by the City for the recycled water service area.

### 3.17.2 Protection of Drinking Fountains and Public Facilities

Any and all drinking fountains located within an approved recycled water use area shall be protected from contact with recycled water, whether by windblown spray or by direct application through irrigation or other approved uses.

Recycled water irrigation systems shall not be installed near food establishments or public facilities such as picnic tables. Design of systems near such facilities shall require the County DEH approval.

### 3.17.3 Hose Bibs and Quick Couplers

No customer shall use or install any hose bibs on a recycled water system in public areas regardless of style, construction, or identifications. The use of quick couplers is at the sole discretion of the City. Only quick couplers with the approved color and identification will be allowed.

## **SECTION 4: FACILITIES DESIGN AND CONSTRUCTION**

### **4.1 DESIGN GUIDELINES FOR ON/OFFSITE FACILITIES**

The design of the offsite facilities, including the preparation of plans and specifications shall be under the responsibility of an engineer registered with the State of California. The design of the onsite facilities that will use recycled water and the preparation of plans and specifications, shall be under the responsibility of a landscape architect, civil engineer or mechanical engineer registered with the State of California. All offsite and onsite recycled water facilities shall comply with the Guidelines for Distribution of Non-potable Water developed by the American Water Works Association (AWWA) California-Nevada Section and the State Department of Public Health Guidelines for Use of Recycled Water. All offsite and onsite facilities shall also comply with all the requirements, conditions and standards set forth in the current edition of the Standard Specifications for Public Works Construction including the Regional Amendments of the County and City of San Diego

and the Recycled Water System Standards & Guidelines Book 7, The City's Landscape Technical Manual, Park and Recreation Consultant's Guide, California Health & Safety, Water and Code of Regulation Laws, relating to recycled water use in the State of California, and the provisions of these Rules and Regulations, and other related design standards and construction specifications guidelines.

The recycled water system including both offsite and onsite facilities, shall be separate and independent of any potable water system. Refer to Book 7 (Recycled Water System Guidelines) for offsite requirements:

<http://www.sandiego.gov/water/cip/guidelines.shtml>.

## **4.2 ONSITE RECYCLED WATER FACILITIES**

### **4.2.1 Customer Responsibilities**

All onsite recycled water facilities which specifically benefit the approved use area shall be provided by the applicant, owner or customer at his/her expense. The customer shall make, at his/her expense, any modification to the potable water system on the premises which is required by the City, in order to permit recycled water service, including but not limited to the installation by the customer of approved backflow preventers.

The customer or owner shall be responsible for the safe and efficient operation, maintenance, and upkeep of onsite facilities. However, the City shall have the right to monitor and inspect the onsite operation of the customer facilities. Pursuant to Section 6 of these Rules and Regulations, the City or authorized representatives of the City, shall monitor and inspect the entire recycled water distribution facility, including customer facilities, and for these purposes shall have the right to enter the customer premises during reasonable hours.

Except in emergencies the City and other parties authorized by the City shall be entitled to enter customer premises with reasonable notice to the user for onsite inspection during reasonable hours to verify that customer facilities are in conformance with the provisions of these Rules and Regulations and all applicable permits.

The customer shall notify the City of any and all updates or proposed changes, modifications or additions to the onsite facilities. Changes shall be approved by the City and designed and constructed according to the requirements, conditions, and standards set forth in these Rules and Regulations and other City requirements. The customer shall comply with any and all applicable State, and local statutes, ordinances, regulations, contracts, and requirements prescribed by the City. In the event of violations, charges and penalties shall be applied by the City in accordance with Section 8 of these Rules and Regulations.

#### 4.2.2 Pressure Requirements

Distribution main pressure is set by the City. The user shall design for available pressure.

If available service pressure is excessive, the user shall utilize pressure regulators downstream of the meter to obtain the correct pressure. If available pressure is insufficient, the user shall provide booster pumping to increase the pressure.

Whenever possible, the City will operate the recycled water system at a lower pressure than the potable water systems. This will aid in the prevention of a cross-connection.

##### 4.2.2.1 Booster Pumps

Customers who use booster pumps to increase the operating pressure shall identify the pumping systems as recycled water, avoid release of recycled water in an uncontrolled manner, and provide a proper drainage of the packing seal water. At least one sign in English and Spanish shall be posted on the premises of the booster pumps which can be readily seen by all operations personnel working in the area.

##### 4.2.2.2 Sealing Water

Any potable water used as seal water for recycled water pump seals shall be adequately protected against backflow. If at all possible, recycled water should be used as seal water, as it is the preferred method.

#### 4.2.3 Depth of Pipe Cover

The depth of cover on service lines shall be a minimum of 18". Variances are considered on a case-by-case basis.

#### 4.2.4 Separations

##### 4.2.4.1 Horizontal

A 10-foot horizontal separation of the recycled water pipeline shall be maintained at all times between a potable water pipeline and/or a parallel sanitary sewer or sludge pipeline. If a 10-foot separation is not available, the approval for special construction requirements shall be obtained from the City, the County DEH and SWRCB Division of Drinking Water prior to commencement of construction. Common trench construction shall not be permitted. In any event, a horizontal separation less than four feet shall not be allowed except by special approval.

##### 4.2.4.2 Vertical

All new systems, including potable water, recycled water, and sewer lines shall be located from the ground surface in order of descending quality. Potable water shall

be above recycled water which should be above sewer. Minimum vertical separation between a potable water line and a recycled water line shall be one foot between the outside top and bottom surfaces of pipes. A sleeve shall be installed wherever recycled water crosses potable water lines unless there is a ten foot vertical separation. The sleeve shall extend ten feet each side of the crossing. Irrigation systems where intermittently pressurized recycled water lines serve sprinkler heads; the potable water line(s) may be placed under the recycled water services. No special construction requirements are necessary provided that one foot vertical separation is maintained.

#### 4.2.5 Color Identification of Recycled Water Pipes

All service pipelines, valves and other appurtenances shall either be factory colored purple and embossed, or be integrally stamped/marked “CAUTION: RECYCLED WATER – DO NOT DRINK”, and “CUIDADO: AGUA RECICLADA – NO TOME EL AGUA”, or be installed with a purple identification tape, or a purple polyethylene or vinyl wrap.

Color coded identification (caution) tape differentiating the recycled water piping from other utility lines shall be consistent throughout the service area. The purple color shall be standardized by the City.

When converting an existing potable water pipeline to recycled water usage the water pipeline shall be accurately located and tested in coordination with the Public Utilities Department and the regulatory agencies, and the necessary actions taken to bring the water pipeline and appurtenances in compliance with these Rules and Regulations.

If the existing pipeline meets approval of the Public Utilities Department and the regulatory agencies, except for the pipe identification, the pipeline shall be approved for recycled water service. If verification of the existing pipeline is not possible, the pipeline shall be uncovered, inspected, and identified prior to use. However, all replacements of an offsite distribution and/or delivery system connected to a recycled water irrigation system shall be color-coded for identification in accordance with the provisions of these Rules and Regulations.

For all offsite requirements refer to Book 7.

#### 4.2.6 Identification Tapes

Warning tapes or tags with metallic backing shall be installed on all recycled water lines which help to trace the pipeline shall be prepared with black printing on a purple field having the words “CAUTION: RECYCLED WATER-DO NO DRINK” and “CUIDADO: AGUA RECICLADA- NO TOME EL AGUA”. The overall width of the tape shall be at least three inches. Warning tapes shall be installed over the pipe longitudinally a minimum of 6 inches above the pipe and shall be centered.

Sample tape marking and the inscriptions that go with it are as shown in the following figures:

CAUTION: RECYCLED WATER – DO NOT DRINK

CUIDADO: AGUA RECICLADA - NO TOME EL AGUA

#### 4.2.7 Valve Casings, Frame, and Cover Box Identification

Valve casings and frames shall be a special triangular, heavy-duty cover. For new construction all valve covers shall be, and for retrofits all valve covers should be of non-interchangeable shape with potable water covers. All covers must have a recognizable inscription indicating recycled water cast on the top surface. For offsite facilities refer to Book 7.

#### 4.2.8 Color-Coding Exposed Recycled Water Facilities.

All above ground, exposed facilities shall be consistently color-coded (purple) and marked to differentiate recycled water facilities from potable water and/or wastewater facilities, as per Book 7.

#### 4.2.9 Blow-Off Assemblies

Either in-line type or end-of-line type blow-off or drain assembly shall be installed for removing water or sediment from the pipe. The line tap for the assembly shall be no closer than 18 inches to a valve, coupling, joint, or fitting unless it is at the end of the line (refer to Standard Drawings). If there are restrictions on discharge or runoff, the regulatory agencies (Storm Water Pollution Prevention Program, Metropolitan Wastewater Department) shall be consulted to find an acceptable alternative.

#### 4.2.10 Hose Bibs Requiring Vacuum Breakers

Potable water outlets with hose attachments, other than water heater drains, boiler drains, and clothes washer connections, shall be protected by a non-removable hose bib-type backflow preventer, a non-removable hose bib-type vacuum breaker, or by an atmospheric vacuum breaker installed at least six inches (152 mm) above the highest point of usage located on the discharge side of the last valve. In climates where freezing temperatures occur, a listed self-draining frost-proof hose bib with an integral backflow preventer or vacuum breaker shall be used.

### **4.3 ORNAMENTAL WATER FEATURES**

Ornamental water features using recycled water must contain within the feature the misting where there is a potential for human contact. If it is necessary to drain the recycled water within the ornamental water feature, the recycled water shall be drained into the wastewater system and not allowed to runoff into the storm drain system. A permit is required from the Public Utilities Department to discharge recycled water into the wastewater system. If it is not feasible to drain the recycled water feature into the wastewater system, a permit is required from the State Water Resources Control Board Region 9 to allow recycled water to runoff into the storm drain system.

### **4.4 RECYCLED WATER FOR CONSTRUCTION USE**

#### **4.4.1 Permits**

The use of recycled water for construction purposes requires approval of the City and other regulatory agencies. The permit shall be obtained prior to beginning construction.

#### **4.4.2 Uses**

Recycled water may be used for construction purposes as defined by Title 22 of the California Code of Regulations.

Disinfection of storage tanks after recycled water is used for construction shall be performed per American Water Works Association (AWWA) Standard C 652 using the following procedure:

1. Drain all recycled water from pumper tanks.
2. Rinse all fittings, hose, and tank with potable (drinking) water.
3. Chlorinate tank such that the water will have a free chlorine residual of not less than 10 mg/L for a period of not less than 24 hr.
4. After the retention period stated the free chlorine residual in the storage facility shall be reduced to a appropriate concentration to be discharged.

#### **4.4.3 Equipment**

Equipment operators shall be instructed about the requirements contained herein and the potential health hazards involved with the use of recycled water. Water trucks, hoses, drop tanks, etc. shall be identified as containing non-potable water, and not suitable for drinking.

Recycled water shall not be introduced into any domestic water piping system. No unprotected connection shall be made between equipment containing recycled water and any part of a domestic water system as per Title 17 Division 1, Chapter 5, Group 4, Articles 1 and 2.

#### 4.4.4 Equipment And Facilities Cleaning

Any equipment or facilities such as tanks, temporary piping or valves, and portable pumps which have been used with recycled water shall be cleaned and disinfected prior to being used for potable purposes. This disinfection and cleaning shall ensure the protection of public health in the event of any subsequent use as approved by the City supervisor or inspector and the disinfection process shall be performed in the presence of authorized personnel.

Service connections, equipped with recycled water meters, for the construction use of recycled water shall be provided by the City at locations convenient to the user but at the discretion of the City.

### **SECTION 5: DUAL PLUMBED SYSTEM AND SINGLE FAMILY RESIDENCES**

#### **5.1 INTRODUCTION**

As per its definition, dual plumbed systems utilize separate piping systems for recycled water and potable water within a facility and where the recycled water is used for either serving plumbing outlets within a building, or serving outdoor landscape irrigation at individual residences. This coexistence of the two systems will require extra caution to prevent unauthorized plumbing modifications that can lead to a cross-connection between recycled water and potable water systems which is absolutely prohibited by state laws. This section establishes the rules and regulations to aid the designer and installer on dual plumbed projects and outdoor landscape irrigation at individual residences; and to provide information on permit and inspection requirements.

#### **5.2 DESIGN GUIDELINES OF DUAL PLUMBED SYSTEMS AND COOLING TOWERS**

The design of the dual plumbed systems, including the preparation of plans and specifications, shall be under the responsibility of a mechanical engineer registered with the State of California. A registered architect or a registered civil engineer can stamp and sign the drawings if he/she is directly responsible for the plumbing system design of the building.

The plans shall be reviewed by the City and the County DEH. Additionally, it is essential to obtain the approval of the State Water Resources Control Board Division of Drinking Water. For dual plumbed, an additional engineering report and set of plans shall be added to the submittal package to the City. The City of San Diego Recycled Water Program staff will forward the additional copy to the SWRCB Division of Drinking Water.

The recycled water portion of the dual plumbed system shall comply with:

- a. The recycled water Chapter 16 of the Uniform Plumbing Code

- b. The Guidelines for Distribution of Non-Potable Water developed by the AWWA California-Nevada Section
- c. The State of California Guidelines for Use of Recycled Water
- d. The conditions and standards set forth in the current edition of the Standard Specifications for Public Works Construction including the Regional Amendments of the County and City of San Diego
- e. The Recycled Water System Guidelines Book 7 Standard Drawings of the City
- f. California Health Laws Related to Recycled Water. Laws and Statutes relating to Recycled Water use in the State of California  
[http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Lawbook.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Lawbook.shtml).
- g. The provisions of these Rules and Regulations, and other related design standards and construction specification guidelines.

The recycled water system shall be separate and independent of any potable water system. Separate means physically separate with absolutely no direct connection or no connection through devices such as backflow prevention devices.

The user shall notify the City of any proposed facility modifications and/or proposed recycled water use changes for City's review and approval. All facility modifications must be inspected by the City upon completion of construction and customer shall submit revised as-built drawings to the city.

The user shall implement on-site controls which meet the requirements established by State and local statutes and regulations to protect public health.

Prior to conversion to recycled water, an onsite Recycled Water Site Supervisor shall be designated in writing and must comply with Section 6.2 of these Rules & Regulations. The designated Site Supervisor shall attend the Recycled Water Site Supervisor Certification Workshop authorized by the City. Copies of the Site Supervisor's certificate, with a 24 hour contact number, shall be provided to the City and County DEH. Site Supervisor must be re-certified every five years.

All maintenance personnel must be educated, on a continual basis, regarding the proper usage of recycled water. Personnel must be informed that recycled water is not approved for drinking, hand washing, cleaning of tools, etc. It is important that this information be disseminated on a regular basis.

### **5.3 DUAL PLUMBED AND COOLING TOWER ENGINEERING REPORT**

An engineering report is required for each proposed use of recycled water and must at a minimum address the following items:

1. A detailed description of the intended use area identifying the following:
  - a. The number, location, and type of facilities within the use area proposed to use dual plumbed systems.

- b. The average number of persons estimated to be served by each facility on a daily basis.
  - c. The specific boundaries of the proposed use area including a map showing the location of each facility to be served.
  - d. The person or persons responsible for operation of the dual plumbed system at each facility.
  - e. The specific use to be made of the recycled water at each facility.
2. Plans and specifications describing the following:
- a. Proposed piping system to be used.
  - b. Piping locations of both the recycled and potable systems.
  - c. Type and location of the outlets and plumbing fixtures that will be accessible to the public.
  - d. If the potable supply is to be used as a backup source, this must have prior approval of City, SWRCB Division of Drinking Water, and DEH. The backup source must be through a legal air gap.
  - e. For cooling towers provide details of the separation of recycled water drift points and fresh air intakes for building(s) HVAC systems.
  - f. For retrofit of existing cooling towers, include comprehensive photos of the towers in the engineering report.
  - g. The methods and devices to be used to prevent backflow of recycled water into the public water system.
3. The testing methods to be used by the recycled water agency to assure no cross-connection between the recycled water piping system and the potable water piping system. This shall include a description of pressure, dye or other tests methods to be used to test the system every four years.
4. Emergency response procedures in the event a cross-connection between the recycled and potable water systems is detected. Any significant failure of the recycled water system shall be reported promptly to City, SWRCB Division of Drinking Water, and DEH.

#### **5.4 DESIGN PROCEDURE**

Dual plumbed system design drawings and specifications shall be provided by the applicant, owner or customer at his/her expense. The customer shall make, at his/her expense, any modification to the potable water system on the premises which is required by the City, DEH, and SWRCB Division of Drinking Water in order to permit recycled water service, including but not limited to the separation of the piping system. A dual plumbed system shall be designed to accommodate the use of recycled water in those areas where the City has determined that recycled water will be supplied in the future, even though recycled water service is not immediately available when the design area is ready for construction. Provisions shall be made for connection to the recycled water system when it becomes available. In the interim, potable water will be supplied to the onsite facilities through an approved temporary potable water connection. Such temporary

connection to the potable water system shall be provided with an approved reduced pressure backflow prevention device installed by the user to the satisfaction of the City, DEH, and SWRCB Division of Drinking Water.

## **5.5 SEPARATION BETWEEN POTABLE WATER AND RECYCLED WATER SYSTEMS**

Physical separation between all recycled water and potable water piping and appurtenances is essential. Separation between the above mentioned systems shall be maintained. No modification or any type of plumbing work can be done without the approval of the City, the County DEH, and the SWRCB Division of Drinking Water. The City shall notify the SWRCB Division of Drinking Water and DEH of any incidence of backflow from the dual-plumbed recycled water system into the potable water system within 24 hours of the discovery of incident.

## **5.6 IDENTIFICATION OF ONSITE PIPES AND FITTINGS**

New onsite pipelines shall be identified as recycled water pipes by using a purple color code differentiating them from potable water piping. All piping and valves must also be appropriately labeled or continuously taped with appropriate identification.

Approved use areas for recycled water service shall also be posted with precautionary notices to warn the public as referenced in Section 3.4.3.

When converting an existing potable water line to recycled water usage the water line shall be accurately located and tested in coordination with the City and the regulatory agencies, and the necessary actions taken to bring the water line and appurtenances in compliance with these Rules and Regulations. Approval of the existing line may be granted if the existing line meets the City and the regulatory agencies approval conditions. If verification of the existing line is not possible, the line shall be uncovered, inspected, and identified prior to use.

## **5.7 FIELD OPERATIONAL RECORD (LOG BOOK)**

A log book shall be maintained throughout the life of the dual-plumbed system consisting of a schematic numbering of each valve. A table that includes a list of valves with the corresponding description of the location of each valve and plumbing fixture served by that valve shall be maintained.

The table shall note the current valve seal number and any previous valve seals for each valve. When a valve seal is broken, the cause for breaking the seal must be noted, dated, and signed off by the Site Supervisor and a Cross-Connection Control Specialist from the City or San Diego County DEH. A copy of the most recently updated and approved as-built drawing shall be kept with the logbook.

## **SECTION 6: FACILITIES OPERATION**

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## **6.1 OFFSITE RECYCLED WATER FACILITIES**

Operation, maintenance, and monitoring of all of the City's offsite recycled water systems including, but not limited to, recycled water transmission and distribution main, service lines, valves, connections, storage facilities, and other appurtenances and properties up to and including the City's meter, shall be under the management and control of the City. No other person, except authorized representatives of the City, shall have any right to operate, adjust, repair, change, alter, move or relocate any portion of the offsite recycled water system.

## **6.2 ONSITE RECYCLED WATER FACILITIES**

### **6.2.1 Customer's Responsibilities**

The customer or owner shall be responsible for the safe and efficient operation, maintenance, and upkeep of his onsite facilities. However, the City shall also have the right to monitor and inspect the onsite operation of the customer's facilities. Pursuant to Section 6 of these Rules and Regulations, the City or authorized representatives of the City shall monitor and inspect the entire recycled water distribution facility, including customer facilities and for these purposes shall have the right to enter the customer's premises during reasonable hours. Reasonable hours shall include hours when irrigation is being performed.

The customer shall notify the City of any and all updates or proposed changes, modifications or additions to the onsite facilities. Changes shall be approved by the City and shall be designed and constructed according to the requirements, conditions, and standards set forth in these Rules and Regulations and other City requirements.

The customer shall comply with any and all applicable State, and local statutes, ordinances, regulations, contracts and requirements prescribed by the City.

In the event of violations, charges and penalties shall be applied by the City in accordance with Section 8 of these Rules and Regulations.

It shall be the responsibility of the customer to notify the City of any and all failures in a recycled water system whether or not in the user's opinion the failures resulted in violations. It shall also be the responsibility of the customer to notify the City of any and all violations which occur as a result of the user's action or the action of his operations personnel.

The user shall keep a written log of all system failures and violations including corrective action taken. The log shall be reviewed by the City regularly.

### **6.2.2 Designation/Responsibility of the Recycled Water Site Supervisor**

Each recycled water customer shall designate a Recycled Water Site Supervisor. The Recycled Water Site Supervisor shall be a person accepted and approved by the City to operate and maintain the onsite facilities and irrigation systems, and to assume the responsibilities outlined below. The City shall require that the designated Recycled Water Site Supervisor obtain instruction in the use of recycled water, such instruction being provided or approved by the City. A Site Supervisor must be re-certified every five years. The Recycled Water Site Supervisor shall be the contact person for the user in all matters between the user and the City concerning the operation of the onsite system and the use of recycled water (see Section 3.10.4). It shall be the responsibility of the customer to notify the City whenever a change of the Recycled Water Site Supervisor occurs. Subsequently the customer shall be responsible to obtain the City's acceptance and approval of his newly designated supervisor. The Recycled Water Site Supervisor will have the following responsibilities:

- a. To oversee recycled water service and maintain onsite facilities.
- b. To ensure that all operations personnel are trained and familiarized with the use of recycled water, including all pertinent information contained in these Rules and Regulations and those applicable portions of the California Code of Regulations. This information shall be supplied by the City upon request by the user, customer, owner, or applicant.
- c. To furnish operations personnel with operating instructions, maintenance instructions, and a color coded site map to ensure proper operation in accordance with the facilities design and these Rules and Regulations and all applicable permits. At least one complete set of this information shall be kept onsite or in the nearest field office or maintenance building.
- d. To operate and control the customer's recycled water system in order to prevent direct human contact of recycled water and to minimize the potential for runoff or over irrigation and take into account the nutrient value of recycled water.
- e. To provide a preventative maintenance program and carry out ongoing regular maintenance and upkeep to ensure the continued operation of all system elements within the requirements of these Rules and Regulations.
- f. To prevent cross-connections to potable water systems, and also to protect the recycled water system from contamination from cross-connections to other sources.
- g. To ensure that testing of backflow prevention assemblies is done on an annual basis per requirements of regulatory agencies, or more often in those instances where successive inspections indicate repeated failures.
- h. To report to the City any and all failures (potential or actual cross-connections, large spills, misuse or other violations, etc.) in the onsite facilities whether or not such failures may result in violations.

- i. To ensure that Site Supervisor certification is valid. A Site Supervisor must attend one of the certification classes every five years. Certification classes are offered by the City. The latest class schedule can be found on the City's website at [www.sandiego.gov/water/recycled/](http://www.sandiego.gov/water/recycled/).

### 6.2.3 Operation and Control of Onsite Recycled Water System

To the extent possible, the operation of the irrigation system shall be during periods of minimal public use of the approved area. Such periods of operation shall remain within any general period of recycled water irrigation operation specified by the City - generally this is between 9 p.m. and 6 a.m.

Operation and control measures of onsite recycled water systems shall include, but not be limited to, the following:

- a. Onsite recycled water facilities shall be operated in such manner to prevent or control surface flows or windblown sprays of recycled water across boundary lines, or into areas not approved for recycled water use. The system design shall avoid spray patterns that tend to accumulate recycled water to produce ponding and/or run-off on public rights-of-way or adjoining areas not approved for recycled water use.
- b. Recycled water shall be applied at a rate that does not exceed the infiltration rate of the soil. Where varying soil types are present, the design and operation of the recycled water facilities shall be compatible with the lowest infiltration rate anticipated or designed appropriately for the soil type to prevent run-off.
- c. No sprinkler system shall be allowed to operate for a time longer than the landscape water requirements. The intent is to control and limit run-off and ponding.
- d. The user shall enforce the following prohibitions per these Rules and Regulations:
  - Cross-connections
  - The use of hose bibs
  - Ponding and run-off
  - Windblown sprays
  - Unapproved uses of recycled water

## **SECTION 7: MONITORING AND INSPECTION**

The City, County DEH, and/or the Regional Water Quality Control Board Division of Drinking Water, or authorized representatives of any of these agencies shall have authority to monitor and inspect the entire recycled water system including both onsite and offsite facilities. The City shall conduct monitoring programs, as it deems necessary, to ensure that customer's recycled water facilities are being operated in accordance with these Rules and Regulations, including the

provision that cross-connections between potable water facilities and the recycled water facilities do not exist.

In carrying out these functions the City, the County DEH, SWRCB Division of Drinking Water and/or the Regional Water Quality Control Board Division of Drinking Water, or authorized representatives of any of these agencies shall have the right to enter any customer's premises during reasonable hours upon presentation of proper credentials. The customer shall indemnify and hold the City harmless for any damage, loss, or injury alleged to have been caused by City personnel while inspecting on-site facilities, except where the City's sole negligence is duly established.

Each time there is a change of either owner or customer on any premises, the owner or customer shall notify the City immediately. The City will then reassess the level of protection required. Also, any alterations to existing onsite facilities that may affect required protection levels must be reported immediately to the City.

At their discretion, the City or representatives of any health agency having jurisdiction may conduct inspections of any property where recycled water service is provided by the City. These inspections are to determine if any actual or potential cross-connection exists. The applicant, owner, or customer shall provide full cooperation to facilitate these surveys.

An annual cross-connection control site inspection will be required at all recycled water use sites. The annual inspection will be performed by the City, or an authorized and certified cross-connection specialist. At the discretion of the City, cross-connection control inspections may occur more frequently, especially on potable irrigation systems which have been converted to a recycled water irrigation system or sites where recycled water use violations previously have had recycled water use violations.

In situations where potable water lines are on the same property and located in the same area as recycled water lines, a quadrennial (every four years) cross-connection control shutdown test is required at all recycled water use sites. The quadrennial test shall be performed by the City, or an authorized and certified cross-connection control specialist.

At the discretion of the City, quadrennial cross-connection control shutdown tests may occur more frequently, especially on potable irrigation systems which have been converted to a recycled water irrigation system. A copy of the test report will be forwarded to the non-inspecting agency.

## **SECTION 8: HAULING OR TRANSPORTATION OF RECYCLED WATER**

### **8.1 RESIDENTIAL FILL STATIONS**

- a. Haulers must apply for a Recycled Water Use Permit issued by City of San Diego

- b. Use areas receiving hauled recycled water must follow the same requirements of California Health & Safety Code, Water Code and Code of Regulations (Title 22 and Title 17),
- c. Before trucks or containers can be filled for the first time, all haulers are required to attend a brief on-site orientation or training in order to learn about using the filling station and the proper handling and safe use of recycled water. Annual refresher training may be required.
- d. Once the hauler completes the on-site orientation or training and a Recycled Water Program inspector verifies the tanker truck or containers meet the recycled water use requirements, the inspector will issue a signed Recycled Water Use Permit. The Recycled Water Use Permit must be available for inspection at all times. The hauler must carry a copy in the vehicle at all times while hauling recycled water.
- e. Recycled water must not be introduced into any potable water piping system and no connection shall be made between the tank and any part of a potable water system.
- f. If the hauler requests to supply recycled water to a use area that uses any plumbed potable or recycled water distribution systems, the Discharger must ensure that the end use complies with all applicable requirements of titles 17 and 22, California Code Regulations, including cross connection control testing and backflow prevention device installation prior to allowing pick up of recycled water. Dual plumbed use areas can only receive recycled water from a recycled water agency that has been granted approval under title 22, California Code Regulations., section 60313(a).
- g. The hauler must keep a log book for each vehicle, tank, or container used to transport recycled water. The log book must be available for inspection at all times. The hauler must carry a copy in the vehicle at all times while hauling recycled water. The log book should include:
  - 1. Date of delivery and use,
  - 2. Volume of water delivered and used,
  - 3. Intended use of water, and
  - 5. Name and address of the recipient/customer.
- h. The hauler or Recycled Water Site Supervisor must notify workers and the public when recycled water is used at a use site and inform workers and the public not to drink recycled water or use it for food preparation.
- i. Precautions should be taken to avoid food coming in contact with recycled water while

the use site is wet.

- j. No irrigation or impoundment of recycled water is allowed within a minimum of 50 feet of any domestic drinking water well.
- k. The hauler shall take adequate measures to prevent overspray, ponding, or run off of recycled water from the authorized recycled water use area.
- l. No connection shall be made between a tank or container of recycled water and any part of a potable water system.
- m. The Recycled Water Use Permit issued by the Discharger must be available for inspection at all times.
- n. Recycled water shall not be applied where it could spray on external drinking water fountains, passing vehicles, buildings, or areas where food is handled or eaten.
- o. Tank trucks, containers, and appurtenances must be clearly identified as “non-potable,” equipped with a legally sized air gap, and must not be used to provide potable water. Containers and hoses associated with hauling recycled water must not be used for potable water. Commercial hauling trucks that may be filled with potable water for non-potable uses must have two separate filling systems, one dedicated to potable water and one dedicated to recycled water. When the truck is filled from a potable water source, there must be a water agency or municipality provided meter and backflow device between the truck fill line and the potable source.
- p. Vehicles, tanks, and containers must have water-tight valves and fittings, must not leak or spill contents during transport, and must be cleaned of contaminants. This must be checked by the hauler before each use. Water-containing vessels that are open to the atmosphere during hauling are not acceptable for use.
- q. Haulers should not overfill containers or trucks.
- r. Hoses used for the application of recycled water shall be removable and shall be stored in a disconnected condition during transport. Hoses should be inspected prior to filling to ensure that they are in serviceable condition and free from leaks.
- s. In the event of an emergency concerning the recycled water hydrant, meter, fill pipe or hose (spillage, leaks, etc.), the hauler should call the emergency contact number listed on the filling station sign for further instructions.
- t. The Discharger may conduct use area visits to ensure proper use of recycled water according to all applicable requirements of titles 17 and 22, California Code Regulations and Recycled Water Use Permit conditions. This may include follow up phone calls or surveys of end users about completion of the hauling process

and recycled water application.

- u. Conditions under which haulers may lose their permits should be clearly communicated by the Discharger. Those conditions should specify that failure to follow program requirements, including adhering to applicable State, County or local codes, will result in suspension of the hauler's permit. Violations of such codes may also result in agencies levying fines and applicable administrative fees.
- v. Residential hauling programs shall have fill stations staffed at all times by a representative from the Discharger. This is to ensure proper handling and filling procedures are being conducted at the fill stations.
- w. Residential hauling programs must limit onetime hauls to 300 gallons.
- x. The permitted hauler shall notify the Discharger prior to using recycled water for a use not approved by the Discharger.
- y. The Discharger, San Diego Water Board, DDW, and County DEH have the right to enter any recycled water use site during reasonable hours to ensure the user is complying with these requirements and the Discharger's Rules and Regulations for Recycled Water Use.

## **8.2 COMMERCIAL VEHICLE FILL STATIONS**

- a. Trucks hauling recycled water that may also be filled with potable supplies for non-potable purposes shall have a dedicated potable use fill line through an air gap separation. The fill lines shall be properly labeled as potable or recycled water. As an alternative, the water supplier may install a reduced pressure principle backflow device on the potable system for filling trucks with potable water. Vehicles used to transport recycled water shall not be used to carry water for potable purposes.
- b. The risers, hoses, and fittings for each supply shall be color coded or painted blue for potable and purple for recycled water.
- c. The hoses, hydrants, and risers for each supply shall have separate and unique fittings (e.g., 2-1/2 inch diameter on the potable system and 2 inch diameter on the recycled water system) such that the potable system cannot accidentally be used on the recycled system and vice versa.
- d. All vehicles used in transporting recycled water must be clearly marked with typical signage that reads: "CAUTION: RECYCLED WATER - DO NOT DRINK" in English and Spanish. The hauler shall conduct annual inspections of the trucks to ensure all requirements are being met and that recycled water is being used in compliance with the rules and regulations.
- e. Vehicles used for transportation or distribution of recycled water, or for street sweeping must be equipped with an air gap to ensure backflow protection.

- f. The use of recycled water for street sweeping or construction shall comply with the appropriate local storm water ordinance. Typical compliance measures include preventing overspray, ponding, or runoff of recycled water from the use area.
- g. Haulers shall be required to enter the date and amount collected on the fill station log sheet during each visit. Include locations the recycled water will be used and approximate amounts.
- h. For Hydrant Meter Filling Stations, ensure the meter is shut off before disconnecting the fill line and make sure no water is leaking from the meter or hydrant.
- i. For Gate Access Filling Stations ensure no water is leaking from the fill pipe or hose and securely re-lock the gate after leaving the filling station.
- j. A truck or tank that has contained material from a septic tank or cesspool shall not be used to distribute recycled water.

### **8.3. USE OF RECYCLED WATER FOR FIRE FIGHTING**

- a. Unused recycled water must not be released into streams, rivers, or waterways.
- b. Fire hydrants supplied with recycled water must be clearly identified by purple paints, signs, tags, stencils or other such labeling, in order to notify firefighters that the fire hydrants are supplied with recycled water.
- c. Fire truck tanks must be disinfected following the use of recycled water for firefighting, since fire trucks could be used to distribute drinking water during civil emergencies.
- d. Firefighting personnel must be adequately trained in safe use of recycled water. New and current firefighting personnel must receive periodic refresher courses regarding proper handling and use of recycled water.

## **SECTION 9: ENFORCEMENT, REMEDIES, AND PENALTIES**

### **9.1 GENERAL**

Any person, firm, corporation, association, or agency found to be violating any provision of these Rules and Regulations or the terms and conditions of the customer's service agreement, permit or any applicable State, County, or City statute, regulation, resolution, ordinance or other requirement shall be served by the City 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.

Failure to permanently cease all violations within the time stated will result in revocation of the permit by the City and termination of recycled water service.

Any person, firm, corporation, association, or agency who violates any penal provision of these Rules and Regulations and who fails to comply with the requirements of the written notice by the City, shall be subject to any penalties and/or remedies, provided in the City of San Diego Municipal Code, including but not limited to Chapter 1, Articles 1-3 inclusive.

## **9.2 SEVERABILITY**

If any section, subsection, sentence, clause, phrase, part or portion of these Rules and Regulations is for any reason held to be invalid or unconstitutional, such invalidity shall not affect any of the remaining portions of these Rules and Regulations. The City declares that each section, subsection, sentence, clause, phrase or part of these Rules and Regulations would have been adopted irrespective of the invalidity of any part. These Rules and Regulations shall be interpreted so as to comply with applicable State, and County laws and regulations.