

# Attachment 49: Installation of Future Recycled Water Mains

Date: October 28, 1998

To: Recycled Water Purveyors in Riverside and San Diego County  
(See Attachment)

From: Drinking Water Field Operations Branch  
San Diego District  
1350 Front Street Room 2050  
San Diego, CA 92103

Subject: Installation of Future Recycled Water Mains

## Introduction

Southern California is dependent on imported water for domestic use. The Department encourages the use of recycled water and future planning for use of recycled water in accordance with the Code of Regulations, Title 22. The use sites for recycled water in San Diego and Riverside Counties are growing at a rapid rate. As a result, recycled water distribution systems are being installed at this time as part of new development in anticipation of recycled water being available in the future.

## Statement of Problem

Installation of future recycled water distribution systems when recycled water is not available at the time of installation is a situation that has arisen often. These pipelines are typically supplied with domestic water in the interim until recycled water becomes available. Water agencies that deliver domestic water in future recycled water mains to areas solely used for irrigation or for other non-domestic purposes have requested guidance for these temporary connections between potable and recycled water pipelines. Conversion of existing mains delivering domestic water, to recycled water, requires that no domestic water supply connections exist upon completion of the conversion.

## Recommendations

Any water main that will be converted to recycled water should be installed in accordance with appropriate regulations and guidance related to recycled water including requirements for color coding and labeling, separation from domestic water lines and sewers, and installation of appropriate back-flow protection. A connection between a domestic water supply and a future recycled water main should be designed in accordance with the following:

1. Detailed plans and specifications for the distribution system and connections should be submitted to this Department and/or the County Health Department prior to construction.
2. The tie in between the two mains must be above ground.
3. A Reduced Pressure Principle Backflow Prevention Device (RP) or an air-gap separation must be installed between the connection of the recycled water main and the domestic water supply main. Annual testing of the RP Device or visual inspection of an air-gap must be performed by the water agency. All records of RP testing must be maintained by the water agency.
4. No domestic services supplying water for human consumption are allowed on the future recycled water main.
5. The water agency must maintain records of all users on the recycled water main and all inter-ties between the recycled water main and potable system.
6. Plans and specifications and as-built distribution maps should be maintained on file by the water agency.
7. Prior to delivering recycled water, all connections to the domestic system must be severed.
8. The water agency must notify the Department prior to the conversion from domestic water use in the recycled water main to recycled water. The Department will verify that all measures aforementioned were taken prior to charging the main with recycled water.

Implementation of these recommendations will save time when recycled water becomes available and will ensure that the domestic water system is protected from cross-connections. Failure to adhere to these recommendations will result in a requirement for a distribution system cross-connection shutdown test when recycled water becomes available and the distribution system is converted to use of recycled water.

Thank you for your time and cooperation in ensuring a safe delivery of recycled water to your consumers. If you have any questions please contact me or the engineer assigned to your system at (619) 525-4159.

cc: County of Riverside, Department of Environmental Health  
San Diego County Environmental Health Services