

Planning for the Distribution of Reclaimed Water

AWWA MANUAL M24

Third Edition



**American Water Works
Association**

MANUAL OF WATER SUPPLY PRACTICES — M24, Third Edition

Planning for the Distribution of Reclaimed Water

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Project Manager/Technical Editor: Melissa Valentine

Production Editor: Cheryl Armstrong

Manuals Coordinator: Beth Behner

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Preface

This publication is the second revision of the original AWWA Manual M24, *Dual Water Systems*, published in 1983. The title has been changed to *Planning for the Distribution of Reclaimed Water* to better represent the content of the manual. The manual provides information on the planning and design of dual distribution systems for properly treated reclaimed water (nonpotable water) for applications that do not require potable-quality water.

The distribution of reclaimed water through the use of dual water distribution systems, one for potable water and the other for nonpotable water, is becoming an accepted practice. The main reasons for this are diminishing supplies of high-quality water resources, rapidly escalating costs for developing new sources or for treating poor-quality water to potable-water standards, and the increasing costs involved in discharging wastewater to the environment.

When faced with the task of developing additional water sources, community water utility managers and design engineers are increasingly evaluating the potential for distributing reclaimed water to serve their community's needs. Developing a reclaimed-water distribution system may be less costly and less wasteful than existing practices that use potable water for purposes that do not require high-quality water.

Properly treated and distributed nonpotable water, as defined herein, can safely be used for irrigation, industrial applications, and a wide range of other nonpotable urban purposes, including toilet flushing in high-rise commercial and residential buildings. These practices conserve limited high-quality water for drinking, cooking, and other uses requiring potable water.

Although several states have established regulations for the distribution and use of nonpotable water, national standards (although there are guidelines) have not been established. The AWWA Water Reuse Committee, which prepared this manual, provides this information for water systems wishing to distribute reclaimed water. Water utilities should consult state and local regulatory agencies before designing a nonpotable water distribution system. State and local regulations may impose requirements differing from the recommendations in this manual. These requirements must be followed to ensure system compliance.