Losses in Water Distribution Networks

This is a best practice manual for addressing water losses in water distribution networks worldwide. Systems and methodologies are presented for improving water loss and leakage management in a range of networks, from systems with a well-developed infrastructure to those in developing countries where the network may need to be upgraded.

The key feature of the manual is a diagnostic approach to develop a water loss strategy - using the appropriate tools to find the right solutions - which can be applied to any network. The methods of assessing the scale and volume of water loss are outlined, together with the procedures for setting up leakage monitoring and detection systems. As well as real losses (leakage) procedures for addressing apparent losses, by introducing regulatory and customer metering policies are explained. Suggestions are made for demand management and water conservation programmes, to complement the water loss strategy. Recommendations are made for training workshops and operation and maintenance programmes to ensure skills transfer and sustainability. The manual is illustrated throughout with case studies.

Losses in Water Distribution Networks will appeal to a wide range of practitioners responsible for designing and managing a water loss strategy. These include consultants, operations managers, engineers, technicians and operational staff. It will also be a valuable reference for senior managers and decision makers, who may require an overview of the principles and procedures for controlling losses.

The book will also be suitable as a source document for courses in Water Engineering, Resource Management and Environmental Management.