

Emergency Planning for Water Utilities

AWWA MANUAL M19

Fourth Edition

FOUNDED
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American Water Works Association

MANUAL OF WATER SUPPLY PRACTICES—M19, Fourth Edition

Emergency Planning for Water Utility Management

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Copy editor: Mary Kay Kozyra

Production editor: Carol Magin

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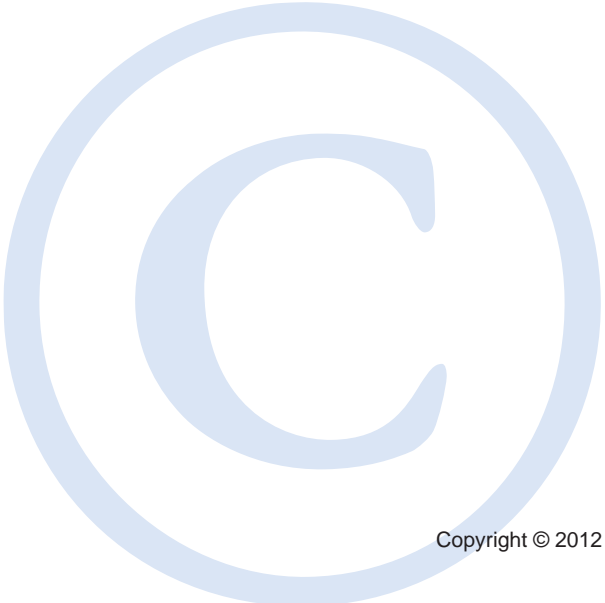
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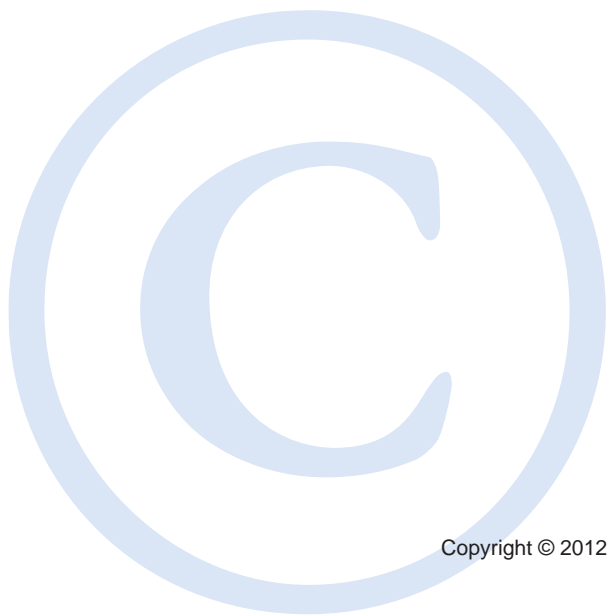
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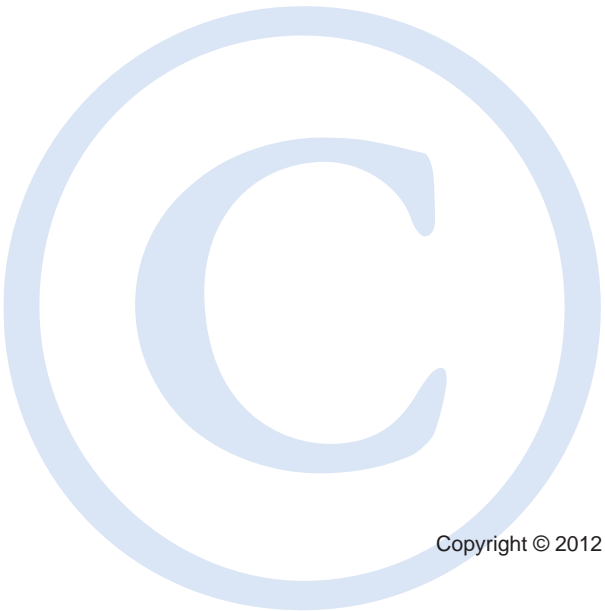
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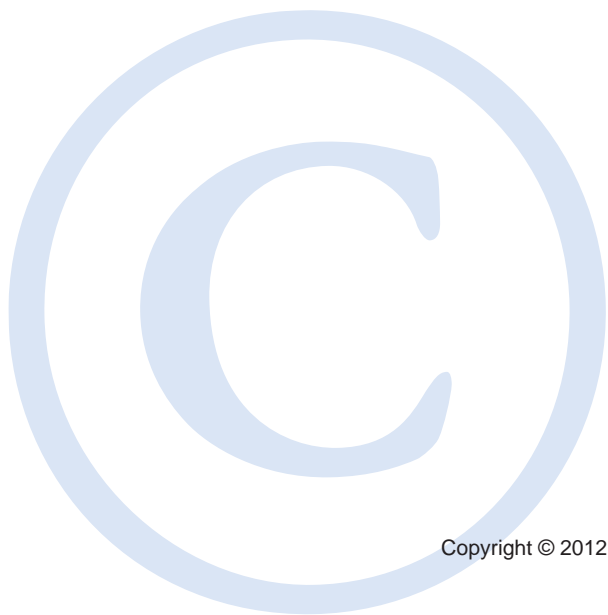


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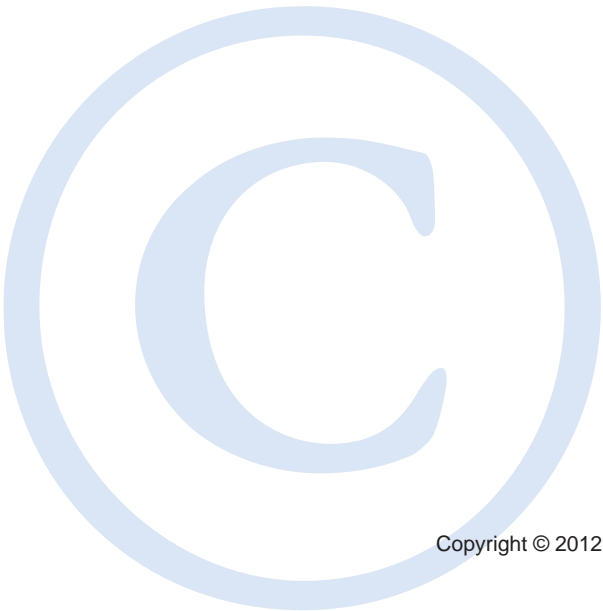


Foreword

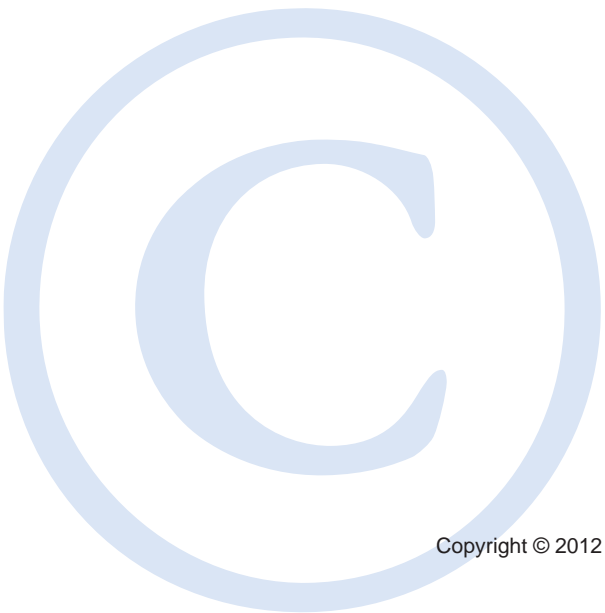
Water utilities have a legal responsibility to provide adequate supplies of clean, safe drinking water to their customers, even when disaster strikes. The utility that is prepared will be more effective at responding to and recovering from disasters.

Preparing for disasters can be a daunting task because of the many disaster hazards and dangers that can occur. To ease this task, AWWA Manual M19 provides guidelines and procedures that can be used by utilities of any size.

This fourth edition of AWWA Manual M19, *Emergency Planning for Water Utilities*, has been updated to include information on several emergency preparedness regulations that were promulgated since the third edition.



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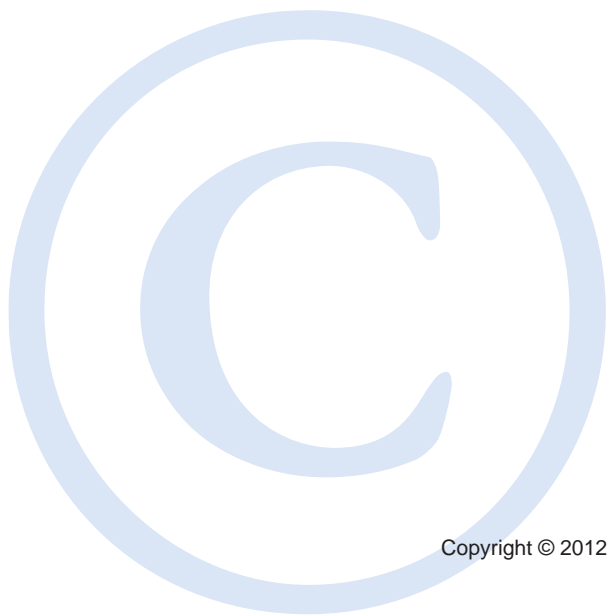
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D.J. Thorig, California–American Water Company (Chair)
Donna L. Braxton, Kentucky–American Water Company
Robert L. Cariano, Lansing Board of Water and Light
Michael P. Fahy, El Paso Water Utilities
John C. Ihli, Pennsylvania–American Water Company
Steve Korbelak, Palm Beach County Water Utilities
William H. Kreutzer, City of Los Angeles, Department of Water and Power
Daniel Patrick Minor, Kansas City Water Services Department
Regina Mize-Joyner, United Water–Arkansas
Janis Morelli, Elizabeth Town Water
Romie N. Mundy, West Virginia–American Water Company
John M. O’Marra, United Water Management and Services
Steve Pappas, Indiana–American Water Company
Peter S. Puglionesi, Duke Engineering and Services
Clinton R. Van Arsdall, Safety Consultant



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Chapter 1

Overview

Water utilities have a legal responsibility to provide an adequate supply of safe, high-quality drinking water to their customers. Disruptions in water quality and delivery can result from emergencies such as natural disasters, accidents, or intentional acts.

The 1974 Federal Safe Drinking Water Act (SDWA) briefly refers to “emergency circumstances” in Title XIV, Part B, Section 1413 (a):

For purposes of this title, a State has primary enforcement responsibility for public water systems during any period for which the Administrator determines (pursuant to regulations prescribed under Subsection (b)) that such state ... (5) has adopted and can implement an adequate plan for the provision for safe drinking water under emergency circumstances.

While primary enforcement agencies throughout the country can be expected to devote considerable attention to the standards addressed by the SDWA, water utilities should not wait for agencies to mandate any aspect of emergency planning. Water utilities should consider themselves responsible for providing water under emergency circumstances. Regardless of their size and location, utilities should prepare for emergencies before they occur and be able to quickly restore water service.

PLANNING FOR DISASTERS

Planning for a disaster may initially seem difficult because it essentially amounts to planning for the unpredictable. For example, despite steady progress in hurricane tracking, the exact impact time, strength, and effects of a hurricane are almost impossible to precisely predict. Other natural phenomena such as earthquakes provide even less warning. On the other hand, a great deal of knowledge has been accumulated on the impacts of natural phenomena, such as probabilities of occurrence and likely effects on infrastructure and the environment. Similarly, the effects on utility systems of human-caused hazards, such as chemical spills or accidents, also have been documented. The approach suggested in this manual is to apply this knowledge and experience to a specific water system, determine the vulnerable components of the system, and either improve the deficiency or plan an alternate strategy.