



**American Water Works
Association**

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ANSI/AWWA G440-17
(Revision of ANSI/AWWA G440-11)

AWWA Management Standard

Emergency Preparedness Practices

Effective date: Aug. 1, 2017.

First edition approved by AWWA Board of Directors June 12, 2011.

This edition approved Jan. 14, 2017.

Approved by American National Standards Institute Jan. 24, 2017.



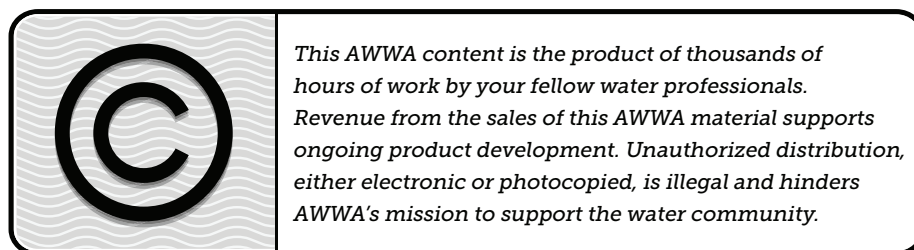
AWWA Standard

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ISBN-13, print: 978-62576-244-3

eISBN-13 electronic: 978-1-63100-433-3

DOI:<https://dx.doi.org/10.12999/AWWA.G440.17>

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Foreword

This foreword is for information only and is not a part of ANSI/AWWA G440.

I. Introduction.

I.A. *Background.* The AWWA Standards Program is designed to serve water, wastewater, and reclaimed water utilities—hereafter, the water sector—and their customers, owners, service providers, and government regulators. The standards developed under the program are generally intended to improve a utility’s overall operations and service. Among the standards is a specific effort to establish formal management and operations guidelines. These guidelines identify appropriate practices, procedures, and behaviors that promote effective and efficient utility operations and contribute to the protection of public health, public safety, and the environment.

AWWA’s standards process has been used for more than 90 years to produce American National Standards Institute (ANSI)*-accredited standards for materials and processes that are used by the water sector. These standards are recognized worldwide and have been adopted by many utilities and organizations. Volunteer standards committees establish standard practices in a uniform and appropriate format.

Formal AWWA standards committees have been, and continue to be, formed to address individual standard practices for the diverse range of water sector utilities. A formal standards committee was created in March 2005 to develop a standard for emergency preparedness practices. This standard is the outcome of Emergency Preparedness Practices Standards Committee industry expertise.

I.B. *History.* The first edition of this standard was approved by the AWWA Board of Directors on June 12, 2011. This second edition was approved on Jan. 14, 2017.

I.C. *Acceptance.* There is no applicable information for this section.

II. Special Issues.

II.A. *Advisory Information on Application of Standards.* This standard includes only those requirements that are limited exclusively to emergency preparedness practices for operation and management of drinking water, wastewater, or reclaimed water systems. Separate standards adopted by the Standards Program cover utility management programs such as distribution system operation and management, water treatment, source water protection, security, communication and customer relations,

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and business systems. More topics will be added over time, including those for wastewater utilities.

III. Use of This Standard. It is the responsibility of the user of an AWWA standard to determine that products and practices described in the standard are suitable for use in the particular application being considered.

III.A. *Purchaser Options and Alternatives.* The following information should be provided by the purchaser:

1. Industry standard used—that is ANSI/AWWA G440, Emergency Preparedness Practices, of latest revision.

III.B. *Modification to Standard.* There is no applicable information for this section.

IV. Major Revisions. Major changes made to the standard in this revision include the following:

1. All definitions were updated to read similar to ANSI/AWWA J100, ANSI/AWWA G430, and NIMS (National Incident Management System) and NIST (National Institute of Standards and Technology) documentation.

2. Changes were made so the requirements listed in this standard complement requirements in ANSI/AWWA G430, Security Practices for Operations and Management.

3. Requirements were added for periodic review and update of maintenance plans.

V. Comments. If you have any comments or questions about this standard, please call AWWA Engineering and Technical Services at 303.794.7711; FAX at 303.795.7603; write to the department at 6666 West Quincy Avenue, Denver, CO 80235-3098; or email at standards@awwa.org.



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SECTION 1: GENERAL

Sec. 1.1 Scope

This standard covers the minimum requirements to establish and maintain an acceptable level of emergency preparedness based on the identified and perceived risks facing utilities within the water sector.

Sec. 1.2 Purpose

The purpose of this standard is to define the minimum emergency preparedness requirements for water, wastewater, and reclaimed water utilities and associated assets; to respond to emergencies and restore normal operations; and to minimize disruption of critical lifeline services that are essential to public health, fire protection, sanitation, economic activity, and consumer confidence.

Sec. 1.3 Application

This standard can be referenced to evaluate, develop, implement, and maintain emergency preparedness practices. Stipulations of this standard apply when this document is referenced and then only to the emergency preparedness practices of the utility.

SECTION 2: REFERENCES

This standard references the documents below. In their latest editions, these documents are applicable to the part of this standard to the extent specified where the standard is referenced. In any case of conflict, requirements of this standard shall supercede other standards referenced.

AWWA G430—Security Practices for Operation and Management.

AWWA J100—Risk and Resilience Management of Water and Wastewater Systems.

AWWA Manual M19—*Emergency Planning for Water Utilities*.

Federal Emergency Management Agency (FEMA), *National Incident Management System (NIMS)*. www.FEMA.gov.

FEMA. Homeland Security Exercise and Evaluation Program. www.FEMA.gov.

WRF, AWWA, and EPA—*Business Continuity Planning for Water Utilities*, WRF Project #4319.

SECTION 3: DEFINITIONS

The following definitions shall apply in this standard:

1. *All hazards*: An approach for prevention, protection, preparedness, response, and recovery that addresses a full range of present threats and hazards, including but not limited to man-made threats, natural hazards, and dependency and proximity hazards.

2. *Asset*: An item of value or importance. In the context of critical water, wastewater, and reclaimed water infrastructure, an asset is something of importance or value that if targeted, exploited, destroyed, or incapacitated could result in injury, death, or economic damage to the community; financial damage to the owner of the asset; destruction of property; or environmental damage or could profoundly damage a utility's prestige and public confidence. Assets may include physical elements (tangible property), cyber elements (information and communication systems), and human elements (critical knowledge and functions of people).

3. *Consequences*: The immediate short- and long-term effects of a malevolent attack or natural, technological, or human-caused incident. These effects