

ANSI/AWWA **G300-22**
(Revision of ANSI/AWWA G300-14)

AWWA Management Standard

Source Water Protection

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American Water Works
Association



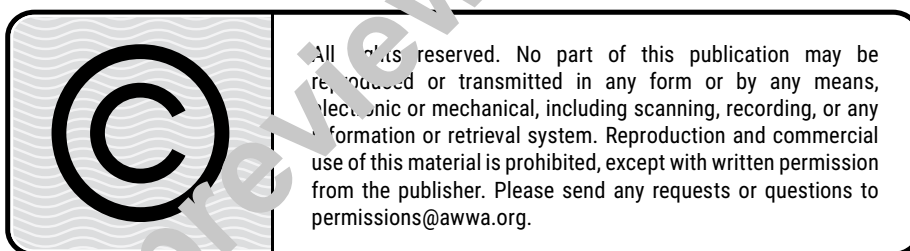
AWWA Management Standard

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Foreword

This foreword is for information only and is not a part of ANSI/AWWA G300.*

I. Introduction.

I.A. *Background.* The AWWA Management Standards Program is designed to serve water, wastewater, and reuse utilities—hereafter the water sector—and their customers, owners, service providers, partners, and government regulators. The standards developed under the program are intended to improve a utility’s overall operation and service through formal management and operational guidelines. These guidelines identify appropriate practices, procedures, and behaviors whose implementation will promote effective and efficient utility operations and thus will contribute to protection of public health, public safety, and the environment.

AWWA’s standards process has been used for more than 100 years to produce American National Standards Institute (ANSI)-recognized 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. Likewise, this management standard is developed using the same ANSI-recognized formal process. Volunteer standards committees establish standard practices in a uniform and appropriate format.

The Utility Management G-Series Standards were developed to assist utilities with identifying and implementing applicable best management practices. To further enhance the use of the Standards, the AWWA Utility Quality Management Committee developed both self-assessment and peer-review programs to assist utilities that choose to meet performance criteria contained within the Standards. The Committee developed a framework for the stringent expectations of all Utility Management Standards, as follows:

- Utility Management Standards are voluntary, and their intent is to provide guidance toward best management practices.
The requirements set forth in the Standards describe best practices that are achievable but not necessarily the best of class.
- The language used in the Standards should avoid requirements related to numeric values and words such as “shall” or “must” in areas that describe or could be considered in exceedance of existing local and/or federal regulations.

Formal AWWA standards committees have been and continue to be formed to address the standard practices and issues associated with the diverse range of water

* American National Standards Institute, 25 West 43rd Street, Fourth Floor, New York, NY 10036.

sector utilities. A formal standards committee was formed during the first quarter of 2002 to develop standards for source water protection. This standard is a principal deliverable of that committee and subsequent committees.

AWWA has developed a series of utility management standards designed to cover the principal management activities of water sector utilities. Some examples of the topics in this series include water treatment plant operation and management, distribution system operation and management, source water protection, emergency preparedness practices, security practices, communication and customer relations, business practices, water conservation program operation and management, reclaimed water operation and management, wastewater collection system operation and management, and wastewater treatment plant operations and management. More topics will be added over time, including additional standards related to wastewater operations.

Drinking water providers strive to consistently supply their customers with sufficient quantities of high-quality water at affordable rates. The objective of source water protection is to maintain, safeguard, and/or improve the quality and quantity of source water. The drinking water community uses a multiple-barrier approach to achieve this goal. The multiple-barrier approach involves several consecutive steps, including selection of high-quality source water(s), source water protection, optimized water treatment, distribution system management, water quality monitoring, and stakeholder communication. Optimization of each step in this process is a logical and prudent approach in responding to customer drinking water quality expectations, regulatory requirements, and the uncertainties represented by the growing number of microbiological and chemical drinking water contaminants of concern.

I.B. *History.* The first edition of this standard was approved by the AWWA Board of Directors on Jan. 21, 2007. The second edition was approved on Jan. 19, 2014. This edition was approved on April 5, 2022.

I.C. *Acceptance.* ANSI/AWWA G300 does not address additives requirements. Users of this standard should consult the appropriate state or local agency having jurisdiction in order to

1. Determine additives requirements, including applicable standards.
2. Determine the status of certifications by parties offering to certify products for contact with or treatment of wastewater, including reclaimed water.
3. Determine current information on product certification.

II. Special Issues.

II.A. *Advisory Information on Application of Standards.* This standard includes only those requirements that are limited exclusively to source water protection.

The standard does not specifically address source water selection. Separate standards adopted by the Standards Program will cover utility programs such as safety, emergency preparedness and security, customer relations, financial management, human relations, and other business systems.

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

III.A. *Options and Alternatives.* The following information should be provided by the user.

1. Standard used—that is, ANSI/AWWA G300, Source Water Protection, of latest revision.

2. Details of other federal, state or provincial, and local requirements (Sec. 4.4.6).

III.B. *Modification to Standard.* Any modification of the provisions, definitions, or terminology in this standard must be provided by the user.

IV. Major Revisions.

1. Language was added to the Foreword Section I.A. to clarify the role of AWWA utility management standards.

2. Language was added throughout to focus on the protection of source water quality and quantity.

3. The Acceptance Section I.C. in the Foreword was updated to match other management standards, rather than product information.

4. The definition for “areas of concern” was removed, while many other definitions have been added or modified.

5. The section on stakeholder involvement was moved to the beginning of Sec. 4 and changed to strong recommendations.

6. The standard was heavily edited for clarity and consistency.

7. References were added for AWWA/ANSI G430 for security planning (Sec. 4.4.7) and AWWA/ANSI G440 for emergency preparedness (Sec. 4.4.8).

8. Additional supporting programs were suggested in Sec. 4.5.1.

9. Implementation guidelines were added to Sec. 4.6.1.

10. The Appendix A bibliography was updated with various resources.

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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ANSI/AWWA G300-22
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AWWA Management Standard

Source Water Protection

SECTION 1: GENERAL

Sec. 1.1 Scope

This standard describes the essential elements for the effective protection of source waters.

Sec. 1.2 Purpose

The purpose of this standard is to define the minimum program requirements for the protection of source waters.

Sec. 1.3 Application

The stipulations of this standard apply when this document has been referenced and then only to the protection of source waters. Given that source water protection is a continuous, ongoing process, it is not anticipated that a water utility can complete all aspects of its source water protection program shortly after initiation of the program, but it should be implemented in a phased approach in accordance with resource availability. However, a water utility should complete or demonstrate substantial progress in all six (6) elements of its source water protection program (as described in Sec. 4), especially regarding the implementation of key action items of its program. Performing a source water assessment and developing a source water protection plan by themselves are not enough to satisfy the criteria of this standard. Completion or substantial implementation of action items is essential