



International
Standard

ISO 24566-3

**Drinking water, wastewater and
stormwater systems and services —
Adaptation of water services to
climate change impacts —**

**Part 3:
Drinking water services**

*Services et systèmes d'alimentation en eau potable,
d'assainissement et de gestion des eaux pluviales — Adaptation
des services de l'eau aux impacts du changement climatique —*

Partie 3: Services d'alimentation en eau potable

**First edition
2025-10**

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

ISO 24566-3:2025

<https://standards.itih.ai/catalog/standards/iso/092a8378-8de5-4ce8-a66b-1914cd34f27c/iso-24566-3-2025>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Objectives	2
5 Impacts of climate change on drinking water systems and responses	2
5.1 General	2
5.2 Impacts	3
5.3 Responses	4
6 Methodology	4
6.1 General	4
6.2 Key functions	5
7 Assessment of current situation, vulnerabilities and opportunities	5
7.1 General	5
7.2 Description and characterisation of the current drinking water system	5
7.2.1 Typical assets of a system	5
7.2.2 Governance	5
7.2.3 Strategies	6
7.2.4 Risk management	6
7.2.5 Operation and asset management	7
7.2.6 Metrics and targets	7
7.3 Identification and assessment of the current climate-related hazards to drinking water services	8
7.3.1 Current climatic and hydrological conditions	8
7.3.2 Current climate-related hazards	9
7.4 Identification and assessment of the current system risks and vulnerabilities	12
7.4.1 General	12
7.4.2 Governance	12
7.4.3 Strategies	13
7.4.4 Risk management	13
7.4.5 Operation and asset management	14
7.4.6 Metrics and targets	14
7.5 Assessment of current system opportunities	15
8 Assessment of future situation, vulnerabilities and opportunities	16
8.1 Identification and assessment of the future climate change hazards	16
8.2 Identification and assessment of future vulnerabilities to the drinking water system	17
8.2.1 Governance	17
8.2.2 Strategies	17
8.2.3 Risk management	18
8.2.4 Operation and asset management	18
8.2.5 Metrics and targets	18
8.3 Identification and assessment of the future vulnerabilities to drinking water system	19
9 Financial assessments	20
9.1 General	20
9.2 Financing adaptation	20
9.3 Cost-benefit analysis	20
10 Development of adaptation strategy	21
10.1 General	21
10.2 Adaptation strategies	21
10.2.1 General	21

ISO 24566-3:2025(en)

10.2.2	Governance.....	22
10.2.3	Strategies.....	22
10.2.4	Risk management.....	22
10.2.5	Operation and asset management.....	23
10.2.6	Metrics and targets.....	23
10.3	Assess revised system.....	23
10.4	Assessment protocols.....	24
10.5	Implementation.....	24
11	Proposed templates.....	24
11.1	Templates for response options and actions.....	24
11.2	Template for response categorisations.....	26
12	Monitor, review, and update.....	26
Annex A	(informative) Examples of drinking water management response.....	27
Bibliography		37

iTeh Standards (<https://standards.iteh.ai>) Document Preview

ISO 24566-3:2025

<https://standards.iteh.ai/catalog/standards/iso/092a8378-8de5-4ce8-a66b-1914cd34f27c/iso-24566-3-2025>

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 224, *Drinking water, wastewater and stormwater systems and services*.

A list of all parts in the ISO 24566 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

<https://standards.iteh.ai/catalog/standards/iso/092a8378-8de5-4ce8-a66b-1914cd34f27c/iso-24566-3-2025>

Introduction

The occurrence of climate change is recognized globally. Accordingly, mitigation and adaptation programs have been introduced in many nations, and internationally through a number of agreements.

Locally, operators of water services have had to assess the impacts and options for responding to the effects of climate change, some of which are slow and long-term, while others are acute, arising from extreme weather events and changes.

Due to the importance of maintaining and assuring drinking water supplies, ISO 24527, ISO 24528 and ISO/TS 24541 provide guidance on operational needs. In addition, ISO 14091 provides guidelines on assessing the risks from climate change.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO 24566-3:2025](https://standards.iteh.ai/catalog/standards/iso/092a8378-8de5-4ce8-a66b-1914cd34f27c/iso-24566-3-2025)

<https://standards.iteh.ai/catalog/standards/iso/092a8378-8de5-4ce8-a66b-1914cd34f27c/iso-24566-3-2025>