

ISO 24566-1:2023-11 (E)

Drinking water, wastewater and storm water systems and services - Adaptation of water services to climate change impacts - Part 1 : Assessment principles

Contents		Page
Foreword.....		v
Introduction.....		vi
1	Scope.....	1
2	Normative references.....	1
3	Terms and definitions.....	1
4	Objectives.....	4
5	Principles for response approaches.....	4
6	The nature and impacts of climate change.....	5
6.1	Nature.....	5
6.1.1	General.....	5
6.1.2	Environmental.....	6
6.1.3	Institutional.....	6
6.1.4	Social.....	6
6.2	Chronic impacts of climate change.....	7
6.2.1	General.....	7
6.2.2	Rising temperatures.....	7
6.2.3	Rising water levels.....	8
6.2.4	Flooding.....	8
6.2.5	Changing precipitation.....	9
6.3	Impacts on water services.....	9
6.3.1	General.....	9
6.3.2	Extreme temperatures.....	9
6.3.3	Extreme precipitation.....	10
6.3.4	Extreme turbulence.....	10
6.3.5	Floods.....	10
6.3.6	Droughts.....	11
6.3.7	Fires.....	11
6.4	Examples of consequences for water utilities.....	11
6.5	Response implications.....	12
7	Adaptation approaches.....	12
7.1	General.....	12
7.2	Adaptive responses.....	12
7.2.1	Categories.....	12
7.2.2	Preparatory responses.....	12
7.2.3	Short-term adaptive responses.....	13
7.2.4	Long-term adaptive responses.....	13
7.3	Examples.....	13
7.4	Mitigative responses.....	14
8	Adaptive response approaches.....	15
8.1	General.....	15
8.2	Risk-based approach.....	15
8.3	Integrating with urban and regional planning activities.....	15
8.4	Adaptive response contributions to sustainability.....	16
8.5	Response contributions to resilience.....	16
8.6	Key elements of adaptive responses.....	17
8.6.1	Whole-business approach.....	17

8.6.2	Management of assets.....	18
8.7	Long-term economic viability assessment.....	19
8.8	Assessment and monitoring of adaptive responses.....	19
9	Recommended approach for responses.....	20
Annex A (informative)	Methodologies for conducting response assessments.....	21
Annex B (informative)	Recommended assessment template.....	25
Bibliography		26