# ISO 24516-2:2019 (E)

### Guidelines for the management of assets of water supply and wastewater systems — Part 2: Waterworks

## Contents

Foreword

### Introduction

- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- Principle aspects of the management of assets 4
  - 4.1 **Objectives and requirements**
  - 4.1.1 Objectives
  - 4.1.2 **Functional requirements**
  - 4.1.3 Performance requirements
  - 4.2 **General aspects**
  - 4.2.1 General
  - 4.2.2
  - Principal aspects Drinking water utilities Principal aspects Drinking water systems 4.2.3
  - Integrating the principal aspects 4.2.4
  - **Risks and life cycle aspects** 4.3
  - 4.3.1 Risk
  - 4.3.2 Life cycle
  - Structuring the process for the management of assets 4.4
  - 4.4.1 General
  - Strategies for the management of assets 4.4.2
  - 4.4.3 Periods of planning
  - 4.4.4 Strategic-level activities
  - 4.4.5 **Tactical-level activities**
  - 4.4.6 **Operational-level activities**

#### Investigation 5

- 5.1 General
- 5.2 Purpose of investigation
- Determine the scope of the investigation 5.3
- Types of investigation 5.4
- 5.4.1 Hydraulic investigation
- 5.4.2 Investigation of the process technique
- 5.4.3 Structural investigation
- **Operational investigation** 5.4.4
- 5.5 **Data collection**
- 5.5.1 General
- Data requirements 5.5.2
- Inventory data 5.5.3
- Condition data 5.5.4
- 5.5.4.1 Failure data
- Further condition data 5.5.4.2
- 5.5.5 **Operational data**
- Data registering and data assignment 5.6
- 5.6.1 Data registering
- 5.6.2 Data assignment
- Locational referencing 5.6.3
- **Review existing information** 5.7

- 5.8 Inventory update
- 5.9 Review of performance information
- 5.10 Planning of investigation
- 5.11 Performance testing

#### Assessment

6

- 6.1 Process
- 6.2 Assessment of hydraulic and drinking water quality performance
- 6.3 Assessment of process performance
- 6.4 Assessment of structural condition
- 6.5 Assessment of operational performance
- 6.6 Comparison with performance requirements
- 6.7 Identification of unacceptable impacts
- 6.8 Identification of causes of performance deficiencies

#### 7 Planning

- 7.1 General
- 7.2 Develop integrated solutions
- 7.3 Assess solutions
- 7.4 Prepare action plan

#### 8 Implementation

- 8.1 Introduction
- 8.2 Create/update plan
- 8.3 Carry out work
- 8.4 Monitor performance
- 8.5 Review performance

#### 9 Operation and maintenance

- 9.1 General
- 9.2 Operation
- 9.3 Maintenance

#### 10 Rehabilitation

- 10.1 General
- 10.2 Strategic plan for rehabilitation of physical infrastructure (long-term planning)
- 10.2.1 General
- 10.2.2 Strategic approaches
- 10.2.3 Determining the need for rehabilitation of physical infrastructure
- 10.2.4 Budgeting
- 10.3 Tactical plan for rehabilitation of physical infrastructure (mid-term planning)
- 10.3.1 Risk-based approach to evaluation of priorities
- 10.3.2 Evaluation of individual risks and prioritising for risk control
- 10.4 Operational plan Implementation of rehabilitation measures (short-term planning)
- 11 Documentation and performance review
- Annex A (informative) Further information on objectives in the management of assets of waterworks
- Annex B (informative) Outline of the content of a drinking water master plan
- Annex C (informative) Examples of data relevant to the management of assets of waterworks
- Annex D (informative) Risk-based assessment for rehabilitation
  - D.1 General
  - D.2 Asset failure likelihood estimation by age
  - D.3 Asset failure likelihood estimation from information on operation and maintenance

Page count: 47