

ISO/TR 24589-2:2025-05 (E)

Examples of good practice for the management of assets of water supply and wastewater systems - Part 2: Wastewater systems

Contents

Page

- Foreword..... v
- Introduction..... vi
- 1 Scope..... 1**
- 2 Normative references..... 1**
- 3 Terms and definitions..... 1**
- 4 Principal aspects..... 1**
 - 4.1 Objectives.....1
 - 4.1.1 Multiple wastewater utilities.....1
 - 4.1.2 Collection network.....2
 - 4.1.3 Treatment plants and other elements.....2
 - 4.2 Strategies.....6
 - 4.2.1 Maintenance strategy.....6
 - 4.2.2 Renewals decision.....7
 - 4.2.3 Inspection strategy of collection network.....7
- 5 Investigation..... 8**
 - 5.1 Non-destructive sewer condition investigation techniques.....8
 - 5.2 CCTV good practices.....10
 - 5.2.1 General.....10
 - 5.2.2 Australian context.....10
 - 5.2.3 Objective.....11
 - 5.2.4 Methodology.....11
 - 5.3 Automated CCTV condition assessment.....12
 - 5.3.1 General.....12
 - 5.3.2 Context.....12
 - 5.3.3 Activities.....12
 - 5.3.4 Benefits.....12
 - 5.4 Hydraulic investigation.....13
 - 5.4.1 General.....13
 - 5.4.2 Flow monitoring.....13
 - 5.4.3 Hydraulic modelling.....13
- 6 Assessment..... 13**
 - 6.1 Deterioration predictive models.....13
 - 6.2 Assess maturity of operations to define action plans.....14
 - 6.3 Treatment plant: implementation of simplified and monetized FMECA (Failure Mode, Effects and Criticality Analysis).....15
- 7 Implementation: sustainable field works..... 17**
- 8 Operation and maintenance..... 17**
 - 8.1 Odour management.....17
 - 8.1.1 General.....17
 - 8.1.2 Australian context.....18
 - 8.1.3 Objective.....18
 - 8.1.4 Methodology.....18
 - 8.2 Dynamic simulation for condition analysis and process optimization for a wastewater treatment plant (WWTP).....19
 - 8.2.1 General.....19
 - 8.2.2 Context and objectives.....19

8.2.3	Outcomes.....	21
8.3	Monitoring and control.....	21
8.3.1	General.....	21
8.3.2	Hypervision.....	22
8.3.3	Integrated information systems.....	22
8.4	Monitoring.....	22
9	Rehabilitation.....	23
9.1	Network renewal plan.....	23
9.2	Rehabilitation strategies based on condition and material deterioration analysis and forecasting.....	23
9.3	Plant renewal plan.....	29
Annex A (informative) Summary of examples of good practices for asset management of wastewater systems.....		30
Bibliography.....		33