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Collana	Electronic book
Altri autori (Persone)	RoyetPaul
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Note generali	Description based upon print version of record.
Nota di contenuto	FOREWORD -- 1 NATURE, FUNCTIONS AND COMPOSITION OF DIKES -- 1.1 Overview of existing structures in France -- 1.2 How dike systems work (dikes and spillways) -- 1.3 Composition of dikes -- 2 CLASSIFICATION OF MALFUNCTIONS AND FAILURE MECHANISMS -- 2.1 Overtopping -- 2.2 External erosion and scouring -- 2.3 Internal erosion (or piping) -- 2.4 Generalised slope failure -- 3 VISUAL INSPECTION OF DIKES: INITIAL INSPECTION AND ROUTINE SURVEILLANCE -- 3.1 Justification for, principles and frequency of visual inspections -- 3.2 Operating conditions and procedure -- 3.3 Fill dikes -- 3.4 Masonry and concrete walls -- 3.5 Spillways -- 3.6 Particular structures and features -- 4 SURVEILLANCE DURING FLOODING -- 4.1 Importance of preparation (flood alert plan and/or action plan) -- 4.2 Visual surveillance during flooding -- 4.3 Post- flood visual surveillance -- 5 DIKE MAINTENANCE -- 5.1 General principles and resources -- 5.2 Vegetation control -- 5.3 Burrowing animals -- 5.4 Slope protection and walls -- 5.5 Toe protective works -- 6 THE BASIC PRINCIPLES OF DIKE DIAGNOSIS -- 6.1 Identifying failure risks and adapting the diagnosis -- 6.2 Historical research -- 6.3 Topography -- 6.4 Visual inspection -- 6.5 Hydrological and hydraulic survey -- 6.6 External erosion and scouring: the geomorphological approach -- 6.7 Geotechnical diagnosis -- 6.8

Numerical modelling -- 6.9 Evaluation of vulnerability -- 6.10  
Prioritisation of risks -- 6.11 Solutions for upgrading dikes -- 6.12  
Assistance for the owner/director of works -- BASIC TERMINOLOGY --  
Photographic records (corresponding to Chapters 1-6) -- APPENDICES  
-- Appendix 1: Basic principles of soil mechanics -- Appendix 2:  
Basic principles of soil hydraulics -- Appendix 3: Surveillance dossier  
for "dry" dikes " How to perform a visual inspection of a fill dike: Initial  
inspection and routine surveillance -- Appendix 4: Presentation of an  
example of post-flood inspection and initial emergency repairs: visual  
inspection of the Agly dikes -- Appendix 5: Annotated digest of the  
main French regulations concerning flood protection dikes.

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## Sommario/riassunto

This technical handbook is intended for the personnel of companies or organisations involved in the management of dikes designed to provide protection against flooding caused by a rise in river levels. Written for engineers and technicians, its aim is to increase understanding of: How dike systems work. The risks faced. Surveillance and maintenance operations. It also aims to explain the reasons for and describe the work to be done to ensure the long-term future and safety of such structures, given water resource legislation in France. Produced upon the initiative of the French Ministry of the Environment (water resources department), this book was written by Cemagref, under the guidance of, and with contributions from, a working party.

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