
HANDBOOK OF HYDROLOGY

David R. Maidment

Editor in Chief

*Professor of Civil Engineering
University of Texas at Austin*

McGRAW-HILL, INC.

**New York San Francisco Washington, D.C. Auckland Bogotá
Caracas Lisbon London Madrid Mexico City
Milan Montreal New Delhi San Juan
Singapore Sydney Tokyo Toronto**

CONTENTS

Contributors	xi
International Advisory Board	xiv
Practitioner Advisory Board	xvi
About the Editor in Chief	xviii
Preface	xix

Part 1 Hydrologic Cycle

Chapter 1. Hydrology, <i>D. R. Maidment</i>	1.3
Chapter 2. Climatology, <i>E. M. Rasmusson, R. E. Dickinson, J. E. Kutzbach, and M. K. Cleaveland</i>	2.1
Chapter 3. Precipitation, <i>J. A. Smith</i>	3.1
Chapter 4. Evaporation, <i>W. J. Shuttleworth</i>	4.1
Chapter 5. Infiltration and Soil Water Movement, <i>W. J. Rawls, L. R. Ahuja, D. L. Brakensiek and A. Shirmohammadi</i>	5.1
Chapter 6. Groundwater Flow, <i>L. Smith and S. J. Wheatcraft</i>	6.1
Chapter 7. Snow and Floating Ice, <i>D. M. Gray and T. D. Prowse</i>	7.1
Chapter 8. Streamflow, <i>M. P. Mosley and A. I. McKerchar</i>	8.1
Chapter 9. Flood Runoff, <i>D. H. Pilgrim and I. Cordery</i>	9.1
Chapter 10. Flow Routing, <i>D. L. Fread</i>	10.1

Part 2 Hydrologic Transport

Chapter 11. Water Quality, <i>S. C. McCutcheon, J. L. Martin and T. O. Barnwell, Jr.</i>	11.3
---	-------------

Chapter 12. Erosion and Sediment Transport, <i>H. W. Shen and P. Julien</i>	12.1
--	-------------

Chapter 13. Hydrologic Effects of Land Use Change, <i>I. R. Calder</i>	13.1
---	-------------

Chapter 14. Contaminant Transport in Surface Water, <i>W. C. Huber</i>	14.1
---	-------------

Chapter 15. Contaminant Transport in Unsaturated Flow, <i>R. J. Charbeneau and D. E. Daniel</i>	15.1
--	-------------

Chapter 16. Contaminant Transport in Groundwater, <i>J. W. Mercer and R. K. Waddell</i>	16.1
--	-------------

Part 3 Hydrologic Statistics

Chapter 17. Statistical Treatment of Hydrologic Data, <i>R. M. Hirsch, D. R. Helsel, T. A. Cohn, and E. J. Gilroy</i>	17.1
--	-------------

Chapter 18. Frequency Analysis of Extreme Events, <i>J. R. Stedinger, R. M. Vogel, and E. Foufoula-Georgiou</i>	18.1
--	-------------

Chapter 19. Analysis and Modelling of Hydrologic Time Series, <i>J. D. Salas</i>	19.1
---	-------------

Chapter 20. Geostatistics, <i>P. K. Kitanidis</i>	20.1
--	-------------

Part 4 Hydrologic Technology

Chapter 21. Computer Models for Surface Water, <i>J. J. DeVries and T. V. Hromadka II</i>	21.3
Chapter 22. Computer Models for Subsurface Water, <i>M. P. Anderson, D. S. Ward, E. G. Lappala, and T. A. Prickett</i>	22.1
Chapter 23. Advances in Hydrologic Computation, <i>R. D. Dodson</i>	23.1
Chapter 24. Remote Sensing, <i>E. T. Engman</i>	24.1
Chapter 25. Automated Data Acquisition and Transmission, <i>V. J. Latkovich and G. H. Leavesley</i>	25.1
Chapter 26. Hydrologic Forecasting, <i>D. L. Lettenmaier and E. F. Wood</i>	26.1
Chapter 27. Hydrologic Design for Water Use, <i>T. A. McMahon</i>	27.1
Chapter 28. Hydrologic Design for Urban Drainage and Flood Control, <i>B. R. Urbonas and L. A. Roesner</i>	28.1
Chapter 29. Hydrologic Design for Groundwater Pollution Control, <i>P. B. Bedient, F. W. Schwartz, and H. S. Rifai</i>	29.1