



Stream Hydrology

An Introduction for Ecologists

Second Edition

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Water plays an important part in today's environmental concerns. Since the publication of the first edition there have been rapid developments in the application of hydrology, geomorphology and ecology to stream management. In particular, growth has occurred in the areas of stream rehabilitation and the evaluation of environmental flow needs. The concept of stream health has been adopted as a way of assessing stream resources and setting management goals.

Stream Hydrology: An Introduction for Ecologists, Second Edition documents recent research and practice in these areas. Chapters provide information on sampling, field techniques, stream analysis, the hydrodynamics of moving water, channel form, sediment transport and commonly used statistical methods such as flow duration and flood frequency analysis. Methods are presented from engineering hydrology, fluvial geomorphology and hydraulics with examples of their biological implications. This book demonstrates how these fields are linked and utilised in modern, scientific river management.

- Emphasis on applications, from collecting and analysing field measurements to using data and tools in stream management.
- Updated to include new sections on environmental flows, rehabilitation, measuring stream health and stream classification.
- Critical reviews of the successes and failures of implementation.
- Revised and updated windows-based software AQUAPAK available at:
<http://www.skmconsulting.com/aquapak>.

This book is essential reading for 2nd/3rd year undergraduates and postgraduates of hydrology, stream ecology and fisheries science in Departments of Physical Geography, Biology, Environmental Science, Landscape Ecology, Environmental Engineering and Limnology. It would be valuable reading for professionals working in stream ecology, fisheries science and habitat management, environmental consultants and engineers.

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