

COMPUTER- ASSISTED FLOODPLAIN HYDROLOGY & HYDRAULICS

Featuring
the U.S. Army
Corps of Engineers'
HEC-1 and HEC-2
Software Systems

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COMPUTER-ASSISTED FLOODPLAIN HYDROLOGY AND HYDRAULICS

In recent years, computer programs for modeling floodplain hydrologic and hydraulic systems have made possible the efficient simulation and analysis of the physical processes involved. In this wide-ranging reference, you'll find the comprehensive, practical information you need to apply this software, including:

- An explanation of the hydrologic concepts needed to understand the theoretical basis of modeling basin hydrology.
- The analytic tools and methodology required to perform a complete floodplain information study, including analysis of basin hydrology, streamflow frequency, and water surface profiles.
- Step-by-step procedures for using some of the most valuable modeling software of the U.S. Army Corps of Engineers' Hydrologic Engineering Center (HEC), including the widely used HEC-1 and HEC-2 programs.
- Numerous problem-solving strategies and analytic options illustrated with real-world examples and detailed exercise problems.
- Sections on water surface profiles through bridges, floodway and channel improvement analysis, river basin modeling, rainfall-runoff simulation and frequency analysis, and other related subjects.
- Whether you're an engineer experienced in floodplain modeling or a public official reviewing floodplain study results, this is your essential reference.

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