Water Supply And Pollution Control 8th Edition

Papers Prepared In The Division Of Water Supply And Pollution Control Region 5 For Presentation At ASCE Water Resources Engineering Conference

"Water Supply and Pollution Control," Seventh Edition has been revised and modernized to meet the contemporary needs of civil and environmental engineering students who will be engaged in the design and management of water and wastewater systems, practicing engineers, and those planning to take the examination for licensing as a professional engineer. Warren Viessman, Jr. and Mark J. Hammer emphasize the application of scientific methods to problems associated with the development, movement, and treatment of water and wastewater. Treatment processes are presented in the context of what they can do, rather than compartmentalizing them along clean water or wastewater lines. The concept of total water management, recognizing that all waters are potential sources of supply, is a dominant theme. Improvements in the seventh edition include New material on water quality standards, water and wastewater treatment process design, water distribution system analysis and design, water quality, advanced wastewater treatment for recycling, storm water management and urban hydrology Major revisions of the sections on water supply and use, water distribution, hydraulics and hydrology of sewer and storm drainage systems, monitoring of drinking water for pathogens, membrane filtration, disinfection/disinfection by-products rule, biological treatment processes, and indirect reuse to augment drinking water supply The latest version of EPANET is introduced. This water distribution network model offers students an opportunity to address problems of all scale and to become acquainted with state-of-the-art software used by practitioners. New topics such as security ofpotable water supplies, the use of membranes in water treatment, and the application of Geographical Information Systems (GIS) to water supply and wastewater management problems have been introduced. More practical examples and many new problems have been added.

For upper-division undergraduate or beginning graduate courses in civil and environmental engineering. The Eighth Edition of this bestselling text has been revised and modernized to meet the needs of today's environmental engineering students who will be engaged in the design and management of water and wastewater systems. It emphasizes the application of the scientific method to problems associated with the development, movement, and treatment of water and wastewater. Recognizing that all waters are potential sources of supply, the authors present treatment processes in the context of what they can do, rather than dividing them along clean water or waste water lines. An abundance of examples and homework problems amplify the concepts presented.

This report presents the results of a study of the problem of water supply and waste disposal in the three-State, six-county region in which the Tocks Island Reservoir and the Delaware Water Gap National Recreation Area are being developed. Peak summer populations are projected over a 50-year period and utilities systems alternatives which could accommodate such projected growth are presented in the report. Water supplies in the region are seen as adequate to meet future demands, with heavy emphasis on development of groundwater resources. Five alternative sewerage plans, ranging in degree of regionalization from 116 local

treatment systems to a single system for the entire region, are outlined including detailed cost estimates. Preservation of water quality in the region is a primary objective of the study.

This clearly written, easy-to-read book offers a practical introduction to the topics of water supply, waste management, and pollution control. Because of the wide scope of the subject matter, the author has included review sections so that readers with little knowledge of biology, chemistry, geology, or hydraulics can comprehend and use this book, and mathematical topics are introduced at a relatively basic level. An overview of environmental technology introduces the book, and includes a discussion of public health, ecology, geology, and soils. The book then focuses on water and wastewater topics, including hydraulics and hydrology, water quality and water pollution, drinking water treatment and distribution, sewage collection, sewage treatment and disposal, and stormwater water management. Municipal solid waste, hazardous waste, air pollution, and noise pollution are also discussed. For individuals working in the fields of environmental quality control and public health protection, as well as civil engineers, wastewater technicians, and water treatment professionals.

A basic introduction to environmental technology with an emphasis on hydrology, hydraulics, water management and water quality. Also discussed is solid and hazardous waste, and air and noise pollution. Fundamental scientific concepts are introduced as needed - the text does not assume extensive knowledge of chemistry or biolgoy, but is designed to teach the basic science with an emphasis on applications.

The latest edition of this best-selling work continues to offer a state-of-the-art look at modern water management. It emphasizes the application of scientific methods to problems associated with the development, movement, and treatment of water and wastewater. Recognizing that all waters are potential sources of supply, the book's tradition of presenting treatment processes in context of what they can do, rather than in the context of water or wastewater treatment, is becoming more appropriate a s the concept of total water management gains greater acceptance. The sixth edition has been improved with new material added on the EPANET model for analyzing water distribution systems, the processing of sludges, and water reuse. The existing coverage of water use, population projections, urban hydrology, storm drainage system design, and treatment processes has been substantially revised to reflect the latest technologies, engineering practices, and regulations. The authors have included a number of new examples and problems based on actual engineering designs and operations. Computer-oriented solutions are stressed where appropriate. The presentation has been clarified where necessary to make this a valuable text and reference for the civil and environmental engineering student. FEATURES/BENEFITS Emphasizes the application of scientific methods to problems associated with the development, movement, and treatment process providing a better understanding toward the concept of total waste management, recognizing that all waters are potential sources of supply. New and revised chapters/sections on water supply, water distribution, hydrology of sewer and stormdrainage systems, biological treatment processes, processing sludges, and advanced wastewater treatment. More solved examples and end-of-chapter problems have been added allowing students to practice the material before moving on to the next chapter. Introduces EPANET and includes examples and problems developed to demonstrate its use.

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Interstate Planning for Regional Water Supply and Pollution Control