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## James W. Conrad, Environmental Science Deskbook

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letters from the six state heads to the California Department of Water Resources, Bruce Babbitt's 1996 address at the Colorado River Water Users Association annual conference, and a copy of the important ESA case, *Bennett v. Spear*.

The fifth section, *The Intricacies of Administering the Waters of Colorado Rivers*, loses the breadth of the presentation of State Engineer, Hal D. Simpson. However, the outline does delineate the major components involved in water rights administration. Simpson cites the constitutional and statutory authority for water rights administration in Colorado before moving on to a historical perspective of the functions of a water commissioner. He lists the current duties of water commissioners, charts the technology changes and current issues facing them, and concludes with noting some future trends.

Section Six, a panel discussion on cooperative water-sharing plans, contains the outlines of three speeches. The first presentation, given by Lee Rozaklis, targets the areas of conjunctive use, effluent management, system interconnections and Moffat Water Storage and the Chatfield Reservoir. Within each area, Mr. Rozaklis depicts the likely players, the options, the water supply potential, and the issues. The second presentation, given by William R. (Rick) McLoud, outlines the current status of a joint water project by discussing the relevant geographical areas, their common characteristics and the project concept. The third presentation, given by Hamlet J. (Chips) Barry III, Esq., narrates the policy statements of the Denver Water Board ("Board"), issued October 15, 1996, regarding current water supply obligations, long-term strategies, and cooperative actions with metropolitan water suppliers outside the Board's service area.

In the final analysis, this manual provides important points and checklists for the water law practitioner, even in the face of losing some of the richness of the presenters and the courses themselves.

*Susan Klopman*

**JAMES W. CONRAD: ENVIRONMENTAL SCIENCE DESKBOOK**, West Group, St. Paul, Minnesota (1999); \$140.00; ISBN 0-8366-1220-5, hardcover/binder.

The *Environmental Science Deskbook* provides environmental practitioners, and anyone interested in environmental issues, an understanding of the technical language, complex processes, and models associated with environmental science. Despite focusing primarily on scientific and technological aspects of environmental practice, each free-standing chapter begins with basic principles and proceeds to more complex issues, with subsequent chapters building on earlier chapters.

The book's editor, James W. Conrad, is well-versed in environmental science and environmental law. In *Environmental Science Deskbook*, Conrad compiles the scientific and technical knowledge of

authors with backgrounds that include law, chemistry, applied mathematics, public policy, toxic substances, engineering, and botany, to name only a few. However, the book provides plain-English explanations of scientific environmental concepts, methods, applications, acronyms, and terminology. The first four chapters introduce the fundamental concepts that apply in Chapters Five through Nine in the context of groundwater, solid waste, air, and wetlands.

Chapter One begins with an overview of statistical notation and analysis, including several examples of computation. The chapter concludes with specific application to the Resource Conservation and Recovery Act, soil sampling, and risk assessment. Chapter Two provides an overview of the basic principles and features of physics and chemistry which apply in an environmental regulatory context. This chapter covers concepts that underlie specialized areas of science and engineering involved in environmental law. Chapter Three addresses a number of difficulties involved in sampling and analyses and gives the reader an understanding of the concepts and terms employed in this area. Chapter Four describes the methods used to estimate the likelihood of adverse health outcomes from exposures to chemicals in the environment. The author describes health risk assessment in mathematic, graphic, and probabilistic terms, and includes a newly revised table on substances that the National Toxicology Program recognizes as known carcinogens.

Chapter Five covers the environmental aspects of groundwater from the hydrologic cycle to the ineffectiveness of "pump and treat" for groundwater remediation. The author includes a detailed explanation of groundwater flow, contamination migration, groundwater analysis, modeling, and investigations. Chapter Six covers surface water quality and wastewater treatment. This extensive analysis examines pollutant classification, aquatic ecosystems, and wastewater treatment operations. Chapter Seven emphasizes the primary established treatment technologies for hazardous solid wastes and contaminated soils: combustion, thermal desorption, vapor extraction, bioremediation, immobilization, soil washing, and solvent extraction. Chapter Eight defines and explains air pollution terminology, air quality monitoring, and modeling specifically related to the 1990 Clean Air Act Amendments, and details methods of air pollution control. The author provides a thorough analysis of air pollution controls for particulate matter, and for gases and vapors, including fabric filters, wet scrubbers, incineration, adsorption, and condensation. The author also includes a discussion on computerized air quality dispersion models used in regulatory application. Chapter Nine covers wetland issues ranging from regulatory definitions to mitigation and restoration. This chapter differentiates between wetlands functions and values, describes types of wetlands, and explains the criteria used to identify and delineate wetlands.

The *Environmental Science Deskbook* also contains an index referencing the book's various sections. The format of the *Environmental Science Deskbook* allows an environmental practitioner to seek specific, detailed knowledge of technical and scientific information, or to gain an overview on a range of topics. This book can be used as a reference tool to quickly retrieve a statistical formula by using the detailed section

breakdown preceding each chapter. The book is a useful self-teaching aid, as it provides a comprehensive explanation of environmental science terminology, methods, and concepts.

*Sommer Poole*

**KATIE LEE, ALL MY RIVERS ARE GONE: A JOURNEY OF DISCOVERY THROUGH GLEN CANYON**, Johnson Printing, Boulder, Colorado (1998); 240pp; \$18.00; ISBN 1-55566-229-3, paperback.

In *All My Rivers Are Gone: A Journey of Discovery Through Glen Canyon*, Katie Lee takes us back to her days as a river runner on the Colorado River. In the early 1950's, Lee spent most of her time as an aspiring actress/singer/songwriter living in Hollywood. After a friend convinced her to take a rafting trip through the Grand Canyon, her life changed forever. She fell in love with the splendor, beauty, and isolation of the Grand Canyon, and, subsequently, Glen Canyon. This book, containing excerpts from a journal kept while on her raft trips, takes us back to a time of innocence, beauty, and unwavering love of nature and Glen Canyon. It is also a book about politics and compromises, and how the two changed a canyon and lives forever.

In *Part One: Two Opposing Realities*, Lee recounts her introduction to the Canyon and its people. Her daily entries show her unfamiliarity with the ways of the Canyon and how she came to accept and be accepted by the Canyon and the people who loved it. Lee introduces us to people who had dramatic impacts on her life, and changed the way she looked at Hollywood and her "other life." As Lee came to know and understand the Canyon, the reader feels included in this experience through her explicit descriptions and colorful prose.

*Part Two: Getting in Step with the Stone*, is devoted to Lee's "we three" trips—trips she took down the Glen Canyon with her two close friends Tad Nichols and Frank Wright. The three shared an unbridled passion for the river and canyon. As talk increased about the "Wreck-the-nation Bureau" building the dam, Lee and her friends explored areas of the canyon that had never before been seen—hidden canyons with wondrous natural pools, lakes, streams, and wildlife.

*Part Three: The Wild Secret Heart* Lee takes her on her final trip down the river with her friends. Lee writes eloquently and passionately about the death of her canyon, and her remorse shows clearly in her journal entries. Lee finally has a great understanding of the river, the canyons, the hidden pools, and deep crevices. Her words express clearly the change that has taken place in her life and her peace with herself—peace that she found in the Glen Canyon.

*Part Four: Fighting the Upstream Wind* concludes Lee's tribute to the gone, but not forgotten Canyon, by chronicling her correspondence with politicians and friends in her fight to save the Canyon. This final sections deals with Lee's emotions as she visits the Canyon during the construction