



Summer 2005

Principles of Water Resources: History, Development, Management, and Policy, by Thomas V. Cech

Ron Cummings

Recommended Citation

Ron Cummings, *Principles of Water Resources: History, Development, Management, and Policy*, by Thomas V. Cech, 45 NAT. RES. J. 777 (2005).

Available at: <https://digitalrepository.unm.edu/nrj/vol45/iss3/5>

This Book Review is brought to you for free and open access by the Law Journals at UNM Digital Repository. It has been accepted for inclusion in Natural Resources Journal by an authorized editor of UNM Digital Repository. For more information, please contact disc@unm.edu.

BOOK REVIEWS

Principles of Water Resources: History, Development, Management, and Policy. By Thomas V. Cech. John Wiley & Sons, Inc., 2003. Pp. 446. \$100.85 hardcover.

Principles of Water Resources is seemingly intended to serve as a college-level text providing the student with a broad coverage of topics relevant for the management of water resources. The author does indeed discuss a wide range of topics. A non-exhaustive list of topics discussed includes a historical perspective of water use and development; hydrology and climate; surface and ground water; types of uses; dams; water law; an overview of federal, state, and local agencies; water quality; and "water wars."

There are various chapters of the book that could be useful to readers looking for well written, accessible discussions of basic concepts related to water. This is particularly true of chapters dealing with physical aspects of water management (hydrology, irrigation, etc.) and with management institutions. In terms of the author's efforts to provide a text intended for the introduction of students—lower-level college students or even upper-level high school students—to a *comprehensive* overview of issues basic to water resources management, however, the book falls well short of this goal. There are simply too many gaps in the book's coverage of important topics for it to satisfy the author's intentions.

The book has a number of shortcomings. First, there is little in the way of analysis or even mention of problems and issues that are fundamental to the management of water resources. As examples, the author's description of ground water and aquifers (Chapter 4) is extraordinarily simplistic and ignores the complexities and difficulties of obtaining accurate measures of groundwater storage. The section dealing with the use of benefit-cost analysis for assessing water reclamation projects (pp. 164–166) is better described as "a passing mention" of the topic. The reader is left clueless as to the difficulties associated with measuring benefits commonly associated with dam construction, or, especially, the historical misuse of the method by (particularly) government agencies—a topic for which there is an enormous amount of literature. Moreover, statements exemplified by "[i]t seems clear that justice to taxpayers of the country demands that when the Government is or may be called upon to improve a stream the improvement should be made to pay for itself, so far as practicable....This concept was later enacted into law..." (p. 165) are, in this reviewer's mind, misleading. Readers are left ignorant of the large literature demonstrating the "injustice" to taxpayers associated with the federal government's involvement in dam construction.

Arguably the weakest section of the book is that dealing with law (Chapter 7). The brush used to touch on important legal topics is simply too broad to leave the reader reasonably well informed. The discussion of riparian and prior appropriation doctrines is just too simplistic; the reader would benefit from at least some small amount of analysis as to strengths and weakness of the systems and contemporary problems and issues arising from those weaknesses. Surely methods for resolving interstate conflicts over water is an important topic. This topic gets four pages of discussions concerning interstate compacts, but neither equitable apportionment (surely a familiar topic to a Nebraskan) nor congressional apportionment is given mention.

The book's strongest, most attractive facet is the author's enthusiasm for the topic. This enthusiasm comes through to the reader on almost every page. Thus, one wants to forgive the author for spotty coverage of topics. This is surely justifiable given the many topics covered in the book—perhaps too many. But one would expect that the author would at least advise the reader of where “abbreviated” coverage occurs and would provide citations for sources that the interested reader could consult for greater depth. The lack of this kind of guidance is perhaps the book's most unforgivable fault.

Ron Cummings

Andrew Young School of Policy Studies
Georgia State University

The Bottomless Well: The Twilight of Fuel, the Virtue of Waste, and Why We Will Never Run Out of Energy. By Peter W. Huber & Mark P. Mills. Basic Books, 2005. Pp. 214. \$26.00 hardcover.

The authors first challenge what they call “the conventional wisdom” that improved energy efficiency diminishes the demand for energy. They argue, sometimes with the help of simple charts, that the opposite is true. Second, they reason, less convincingly, by examining past trends and looking forward to an extraordinary future that now beckons, that we will never run out of energy. Unfortunately, the book contains a mishmash of stories about the wonders of technologies from James Watt and on.

Their first story begins in 1765, the year James Watt invented the steam engine; eleven years later Nikolaus Otto invented the internal combustion engine, and fourteen years later Thomas Edison patented his light bulb. The bulk of the first ten chapters is devoted to showing that increasingly more efficient cars, engines, steam turbines, light bulbs, radios, jets, microprocessors, robots, and whatnots have become available to consumers over time. For example, the energy cost of transportation (fuel gallons/100 vehicle miles) fell sharply from 1973 to