



Book Review

Comparing Futures for the Sacramento-San Joaquin Delta

By Kristen Cockerill

No abstract

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Comparing Futures for the Sacramento-San Joaquin Delta. Jay R. Lund, Ellen Hanak, William E. Fleenor, William A. Bennett, Richard E. Howitt, Jeffrey F. Mount, and Peter B. Moyle. University of California Press. 2010. ISBN 978-0-520-26197-6 (cloth). 231 pages.

The key message in *Comparing Futures for the Sacramento-San Joaquin Delta* is that fundamental change will characterize the delta of the future. This will manifest in both a changing physical reality (e.g. rising sea level) and changes in how we manage the delta to address ecosystem function and human demand for water.

This is an excellent primer for the specifics of this particular Delta, which is part of the largest estuary on the west coast of the Americas and is the greatest single source of water for the state of California. More generally, this text offers insight for the complexity inherent in water management decisions in the 21st century. The text is visually appealing, with numerous full color maps, charts and tables. It is thoroughly cited and offers a useful glossary as well as a complete index. Additionally, the book is well served by its multidisciplinary authorship. This integrative approach to assessing various options should be the model for any work addressing water management. One critique of this specific group of authors is that they seem to equate policy with economics. There are two economists represented, but no authors whose specialty is politics or regulatory processes (i.e. a political scientist), or broader yet, no one with a more cultural approach to policy making. The lack of this expertise is most obvious in the differences in depth and complexity afforded to the discussions of economic feasibility compared to the discussions of policy and regulatory feasibility for various management scenarios.

Despite crediting seven authors, the book reads smoothly and is a cohesive piece that is clearly organized into chapters that describe the history (both natural and human) of the Sacramento-San Joaquin Delta, the inevitable change coming to the delta, the

hydrodynamics and salinity profile, the ecosystem and fish populations, as well as the economics, policy and regulatory issues relevant to deciding how to manage the delta. The authors review four possible management scenarios: 1) maintain the status quo – continue pumping through the delta; 2) construct a peripheral canal around the delta; 3) construct a dual-conveyance system that combines the flow through the delta with a peripheral canal; and 4) end water exports. For each alternative the authors compare the economic, environmental, and policy outcomes, including providing a formal decision analysis. They conclude that, “Although ending exports would be best for the fish, a peripheral canal is an unavoidable component of a long-term solution that serves both economic and ecosystem objectives. A dual-conveyance system is, at best, an interim solution.”

This statement uses language that represents a weakness in the book. Although the authors open the text by acknowledging that “We do not pretend to offer a perfect, comprehensive solution; 100 years of history would argue that kind of solution is unlikely” they lapse into a tone and concomitant language that consistently suggests that they *do* seek a comprehensive solution.

The second chapter provides a fabulous overview of the history of the region and the various “solutions” implemented to address water management desires over time. A couple of interesting notes include that the first lawsuit concerning agricultural diversions and subsequent salinity issues downstream was filed in 1920 and the delta was already suffering from groundwater overdraft by 1930. The authors, however, fail to directly connect the hubris of past decisions to the hubris embedded in the options put forth in this book. History suggests that the big water projects implemented in the past have contributed to the issues the delta faces today. Yet the book assesses the pros and cons of new, large-scale projects, which future generations will quite likely be adding to the long list of attempted “solutions” in the delta’s history. The authors do note that there is significant uncertainty and that we lack scientific knowledge about the systems to be managed, but do not then explicitly discuss that these gaps are precisely *why* long-term or comprehensive solutions are not likely to be forthcoming today, any more than they were feasible 20, 50 or 100 years ago.

Additionally, although the authors do an excellent job in emphasizing that physical realities like sea level rise are making delta management increasingly complex, the opportunity was lost to seriously dig into other human-driven root causes (i.e. there is minimal discussion of population growth and the general increase in demand as a driving force in all water management). This omission (certainly not unique to these authors) is perhaps the single greatest barrier to identifying management options that attempt to address causes and not simply symptoms.

Despite these shortcomings, the authors deserve kudos for their forthright approach in emphasizing that change is inevitable and that tradeoffs among economics and ecosystem function are value-based decisions that must be made. Overall, this text is a valuable addition to our understanding of water management and is an excellent place to begin the dialogue about how we will make these difficult decisions.