

**BOOK REVIEW: William Blomquist, Edella Schlager,
and Tanya Heikkila. *Common Waters, Diverging Streams:
Linking Institutions and Water Management in Arizona,
California, and Colorado.* Washington, DC: Resources
for the Future, April 2004, x + 210pp., \$70 cloth,
ISBN 1-891853-83-X; \$30.95 paper, ISBN 1-891853-86-4.**

There is an old Mark Twain aphorism in the western United States that “whiskey is for drinking and water is for fighting over.” And like many things Mark Twain wrote, it is the universal truth in the hyperbole that makes it funny. Yet, while the joke may be universal, water management in the West is anything but. Rules and regulations vary markedly across state lines, and policies can vary widely within relatively small geographic areas. The end result of this institutional variety is that the management and use of a river will be dramatically different depending upon where it flows and which states are responsible for its administration.

As a practical matter, water economists have long recognized the critical role of institutional variation. But despite acknowledging that rules dictate outcomes, much of the institutional knowledge surrounding water has not been laid out in single, easy references. The closest things to summaries of water institutions are generally found only in water law textbooks, many of which run to multiple volumes. Within the economics discipline, water—when mentioned at all—is usually relegated to a small subsection of natural resource economics texts, and books focusing solely on water usually examine different types of water use rather than institutional differences. This leads to a situation where water economists may know a great deal about their own state, but have no easy references explaining what happens to the management of the same river when it crosses a state line.

Common Waters, Diverging Streams seeks to fill this gap, albeit within the narrow confines of conjunctive use. Conjunctive use, the simultaneous management of ground water and surface water supplies to meet unified water demands, is a concept that dates back to the work of Oscar Burt in the 1960s. However, with rising opposition to the cost, both environmental and financial, of large-scale water projects, conjunctive use is experiencing a renaissance as a water storage alternative. It is this timeliness, as well as the comprehensiveness of its institutional analysis, that makes this book worth having. In a single, spare volume it provides a useful and meaningful accounting of the basic water management institutions across three western states: Arizona, California, and Colorado. For an economist new to the field of water economics, this book explains basic surface water/ground water management institutions in each state, and offers a comparison of the relative effectiveness of these institutions in each state.

The book begins by framing and explaining conjunctive use. While this discussion is obviously meant for an academic audience, it successfully avoids the dry, passionless language one expects from a scholarly work. It manages to be accurate and precise without sacrificing readability. More importantly, the descriptive explanation of conjunctive

use is informative to the novice without numbing the expert. Chapter 3 is particularly effective in explaining—at a global level—both the promise of conjunctive use and the potential barriers to its successful implementation. Its approach is especially helpful in introducing the reader to the basic problems that can be anticipated in all conjunctive use systems before focusing on the state-specific application of conjunctive use presented in later chapters.

Following the general discussion of conjunctive use, each of the three states is granted a chapter of its own, and each is examined along the same lines: What are the basic water laws in the state? how is conjunctive use administered? and what is the state's practice/experience with conjunctive use? The latter emphasis is particularly useful—providing a brief summary and description of working conjunctive use projects in each state. On balance, the three chapters devoted to each state in turn are quite good, although the section on Colorado's groundwater appropriators should be updated in response to recent court decisions. As a potential source of supplemental readings in the classroom, the detailed discussion addressing actual conjunctive use systems is highly beneficial and a valuable addition to existing texts on water management in the West.

Having said that, for an economist, the last portion of the book—the section dealing with a comparison of conjunctive use across states—is somewhat lacking. The comparisons are almost always physical or administrative, i.e., descriptions of the mechanisms by which water is recharged, how recharge credits are governed, and such. What is missing is a comparison of the incentives conveyed to water users. Measures of efficiency used are almost invariably physical measures, where success is measured in terms of gains and losses in volumes of water. What is crucial to an economist is not simply the effects on the amount of water which is available in each state, but the type of use to which the water is put. Key to an economic audience will be the answer to this basic question: Do the institutions in a given state send the water to its highest and best use? The book really does not specifically focus on this type of use-efficiency, nor does it examine the incentives inherent in each state's institutions to determine if they can even promote movement toward use-efficiency. The closest the book comes to addressing this point is in listing the financial tools necessary to administer and operate conjunctive use systems. However, while covering the costs of conjunctive use systems is of vital concern, the potential for using taxes and pumping levies as a policy tool is not addressed. To economists, the potential for using such charges to achieve specific policy goals—and whether or not institutions in each state allow them to be used for such ends—is a critical piece of the policy process. If the text has a weakness, it is the lack of a specifically economic component in the discussion, and it is a weakness that could have been foreseen.

Nevertheless, while this lack of an emphasis on economic use-efficiency is disappointing, it does not compromise the overall utility of the book. Rather, it reaffirms the importance of linking institutional analysis with economic analysis. Additionally, by providing a clear and concise summary of the institutions currently in place in three of the most critical western states, it offers a valuable reference to the working water economist and an invaluable foundation to an economist new to the field. That the book ultimately disappoints in a key area is more a tribute to how much it achieves than to the little it leaves undone.

Eric C. Schuck
Colorado State University