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Peer reviewed

Review: Handbook of Water Use and Conservation

By Amy Vickers

Reviewed by [Russell A. Cohen](#)

Massachusetts Department of Fisheries, USA

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Amy Vickers. *Handbook of Water Use and Conservation*. Amherst, MA: WaterPlow Press, 2001. 446 pp. ISBN 1-931579-07-5 (hardcover). US\$99.95. Recycled paper. paper.

"'Water is our most precious resource' is a refrain expressed by many—from engineers and poets to politicians—yet humanity's actions have often belied those words. Amidst the world's growing population and increasing demand for more water, many regions around the globe are facing the hard realities of groundwater depletion, chronic drought, dried-up rivers, poor water quality, mounting infrastructure costs, and diminishing alternatives for additional supplies. As we peer into the 21st century, water conservation is looking far more like an imperative than an option" (p. xv). So begins Amy Vickers' *Handbook of Water Use and Conservation*, to date the most authoritative, encyclopedic reference work available on this subject.

The Handbook contains detailed descriptions of hundreds of water-efficiency technologies and practices for all customer groups—residential, landscape, industrial, commercial, institutional, and agricultural. Vickers backs up her claim that water conservation represents "The Great Untapped Water Supply" (p. xv) by presenting hundreds of proven water efficiency measures that reduce and control both short-term water demand (such as during drought and peak conditions) as well as long-term demand for each type of customer. Potential water savings and related costs are provided too, so you can know which measures will provide the best benefit/cost ratio for any type of customer. Vickers points out that many, if not most, water conservation measures have a relatively short payback time, often two years or less.

As someone from a densely populated state where profligate household water use increasingly threatens the natural integrity of our streams and other hydric ecosystems, I found the Handbook's sections on domestic water use (and abuse) particularly valuable. Here's a brief example: "The American obsession with lawns and lawn care products has come under scrutiny in recent years because of concerns about wasted water and the burdens of time, cost, and pollution that a well-manicured green lawn exacts from its owner and the natural environment" (p.145). Vickers points out that lawn watering represents one of the biggest non-essential uses of water in many communities as well as the fact that "keeping a lawn green with no brown spots during midsummer is often a costly, losing battle, even with regular

irrigation" (p. 205). If that alone wasn't enough to break Americans from their lawn habit, Vickers also points out that an estimated 600 million gallons of gasoline are used annually for lawn mowing in the U.S. and that homeowners apply nearly ten times more pesticide per acre of turf than farmers use on crops.

She goes on to describe low water use alternatives to lawns such as the burgeoning "natural landscaping" movement in the United States and Canada that relies on native plants and minimal, if any, irrigation other than rainwater. The purpose of natural landscaping is to preserve and reintroduce indigenous plants, a practice that can virtually eliminate the need for supplemental watering after the plants are established. Groups promoting natural landscaping in the U.S. include [The Wild Ones-Natural Landscapers, Inc.](#), a non-profit organization promoting the use of native species to encourage biodiversity and environmentally sound landscaping practices, and [Smaller American Lawns Today.](#)

Vickers, an engineer with an independent consulting practice (Amy Vickers and Associates, based in Amherst, Massachusetts) specializing in water conservation and integrated resource management, applied her more than two decades of experience in the multi-year effort to write and publish this book, which has been warmly received by the water supply community as well as being nominated as a finalist in the Professional/Technical category for a 2002 Benjamin Franklin Awards™ by the Publishers Marketing Association.

I would highly recommend the Handbook as required reading for public water supply managers, corporate environmental audit/compliance managers, environmental advocates seeking to reduce the adverse impact of excessive and inefficient water use, and anyone wishing to save money while helping to save the environment at the same time. This book would also be a suitable reference work in college libraries for engineering, natural resources, planning and allied fields, as well as in technical/vocational schools where a lot of the folks managing heating and plumbing systems are trained. Although the Handbook's \$99.95 list price is a little daunting, the book should quickly pay for itself when the reader adopts one or more of the myriad water conservation measures described in it.

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