

**BOOK REVIEW:**  
**DRY RUN: PREVENTING THE NEXT URBAN  
WATER CRISIS**  
**by JERRY YUDELSON**

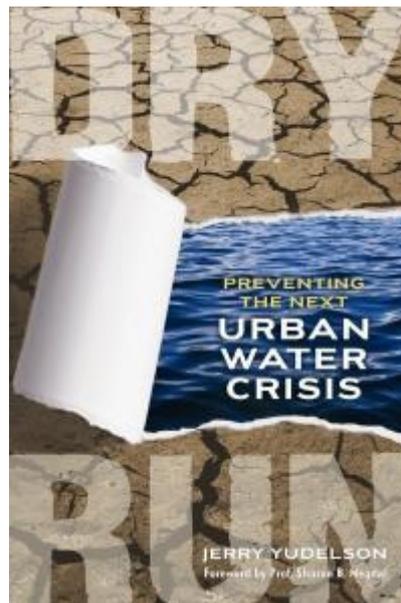
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**BOOK REVIEW**

On 1st June 2010, New Society Publishers released the book “Dry Run: Preventing the Next Urban Water Crisis” (ISBN: 9780865716704) written by Jerry Yudelson, who is the president of Yudelson Associates, green building consultants. Jerry Yudelson chairs Greenbuild, the world's largest green building conference, has written six books on green building, including Green Building A to Z (New Society Publishers) and he has trained over 3,000 people in the LEED green building rating system.

The book contains 304 pages structured in three parts and 15 chapters and ends up with an epilogue „Water and Sustainability”. It underlines the short coming and visible effects of low water supply in different cities within the urban and global water crisis context. The way the author presented his expertise in buildings design and construction, how he explained in which ways we can reduce our water footprint without compromising the standards of living we are used to, has become an excellence source of documentation and practical solutions especially for managers, public officials and other decision makers that are in charged with urban water supply, and also for citizens, building managers, homeowners, architects, engineers.



Unfortunately, fresh water shortages are considered an increasingly serious global problem. With water restrictions emerging in many developed countries and water diversions for industrial, urban and environmental reasons stirring up oceans of controversy, there is a growing thirst for innovative approaches to reducing our water footprint.

Dry Run shows the best ways to manage scarce water resources and handle upcoming urban water crises. The author presents in this book results from a research based on original interviews with more than 25 water researchers and industry experts, and explains water issues and proposes solutions for homes, buildings, facilities and schools. The book studies and demonstrates the importance of the connection between water, energy use, urban development and climate change, and presents best practices for achieving "net zero" water use in the built environment including: water conservation strategies for buildings, factories, cities and homes; rainwater harvesting; graywater reuse and water reclamation systems; water efficiency retrofits; onsite sewage treatment and new water reuse and supply technologies.

In the „Foreword“, professor Sharon B. Megdal from Tucson, University of Arizona, points out that this book provides essential information for individuals, businesses and communities as they intend to become better water stewards and how they can adopt more suitable and sustainable water use practices, in the context of the next global and urban water crisis.

Jerry Yudelson in „Preface“ explains that in this book he returned to his first love in the professional word, which is water, and the fact that as people become more aware of the many connections between water and energy issues, sustainable building design will increasingly come to include both water and energy issues as primary concerns.

The author explains that ancient civilizations like: Mesopotamian, Mayan and Indus River disappeared because of their lack of capacity to manage water resources and the environment. In order to protect civilizations, Yudelson argues that protecting soil and water is essential since everyone must eat. He focused only on urban water use in the built environment, giving examples from developed countries that have already confronted with global warming, population and economic growth, and environmental degradation that conducted to reduction of fresh water supplies.

In the first chapter „A short history of water“, which is before the first part, the author makes a short presentation of the incredible water and civilization history and how water, economics and policy have been part of it from the very beginning. The author also brings into water politicians, planners and engineers attention that water is an important resource for a healthy environment, especially as history demonstrates that they and us have ignored it.

The book's first part „The coming water crisis” has five chapters where are presented and analyzed in a professional form with some personal influence concepts, theories and approaches regarding patterns of water use, urban water crisis, urban water management, water use in commercial and institutional buildings, and water use in homes.

In this part the author also addresses a number of questions like: what are the opportunities for urban water management in the coming decade, the second of this century? Where cities should be looking for means and methods to meet their water supply requirements? What is the relationship between water supply and energy supply? What should water cost in the new era of scarcity and uncertainty? What will be the effects of global warming on water supplies? Within the „Urban water management” chapter, Jerry Yudelson explores these themes and presents some lessons, best practices and good examples for urban water management. He starts with the big picture, global warming induced by climate change.

He claims that expected global warming in this century will cause significant problems for urban water managers unless more water agencies begin to incorporate conservation and water use efficiency as integral parts of their future supply planning. Yudelson constantly brings to our attention that water supply, distribution and treatment use significant amounts of energy; and he gives as an example California where it's nearly 20 percent of all energy use. The author reminds us that “nega-gallons” (supply gains from conservation and efficiency programs) are far cheaper than most water supply and efficiency programs now in place US nationwide. In the fourth chapter he demonstrates that pricing is a key tool for reducing water demand, one that is just beginning to be employed in many parts of the US country. In Las Vegas, there are programs in place to reduce water use by 50 percent from 1990s levels, to account for a dwindling supply of water from the Colorado River's Lake Mead, its main water supply source, using four specific methods: pricing, education, incentives and regulation. The water/energy nexus will continue to challenge both water and energy planners in the decades ahead. By recognizing their interaction, policy and decision makers will be able to take better water resource decisions for the future.

Within the second part „The colors of water” which contains seven chapters, the author is using different colors in order to distinguish different types of water. The chapters from this second part are entitled „Blue water”, „Graywater”, „Brown Water”, „Blackwater”, „Green Water”, „Zen Water” and „New water” and provide information for each type of water. The author comes with examples projects, challenges, lessons learned, and benefits. For example in „Brown water” chapter Jerry Yudelson explains that

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brown comes from the stormwater runoff that has sediment in it and looks brown. He uses this term to distinguish it from „blackwater” for example which means the water from the sewage.

Collecting the water from rain, which is free, is becoming a normal practice in countries like Australia, Germany and now in US. This type of water can have many usings, some of most important are in irrigations, flushing toilets, sewage, gardens, etc.

The third part of the book “Preventing the next urban water crisis” is containing two chapters: „Responding to water crisis: a tale of four cities” and „Ten steps to preventing the next urban water crisis”. The fourteen chapter presents a comparative study of four cities, the analysis of similarities and differences regarding the way they manage the water resources in the urban water crisis context, some best practices and comments for each managerial approach.

In the last chapter the author presents a ten step program of measures that water stakeholders can put into practice right away, in the near or distant future, depending on the water issues from that specific region and, most important, of local political factors. In order to prevent the next urban water crisis it will be needed a mix combination of measures like: introducing new technologies, changes in water pricing, environmental considerations, financing infrastructure upgrades, new institutional arrangements, a new behavior, more rational, for how people to use water. The ten step program can be taken by any water stakeholder and it leads to important water, money and energy savings.

This book is important because it makes a complex analysis on one of our most precious resources – water. It also brings to our attention a new challenge our society is facing, which is managing water supply in the context of urban water crisis and, most important, „Dry Run” provides information, useful data, practical and sustainable solutions for citizens, political factors, policy makers, engineers, operators and managers of water companies.