

INTRODUCTION: ENVIRONMENTAL FLOWS

Nicole Silk and Clay J. Landry

THE SUSTAINABLE WATERS PROGRAM

Nicole Silk

Today's water managers face many challenges in their efforts to serve multiple demands upon the world's limited freshwater supply. Allocating water for diverse and often competing traditional uses for water (e.g., industry, agriculture, urban, energy, etc.) is now even more complex due to the implications of climate change. Society's expectation that ecosystem health receive adequate attention and accommodation has expanded this equation even further.

Managing for ecosystem health will certainly benefit both our generation and those that follow us. We simply must take good care of the systems that support us if they are going to continue to support our multiple demands. Historically, such efforts have resulted in choosing either water for people or water for nature. How do we move away from viewing ecosystem needs as competing with human demands for water, from pitting scientists against engineers and lawyers against water management agencies? How do we integrate ecosystem needs into water management?

Discussion about this paradigm shift may sound utopian but change is already underway. Water management agencies around the world who serve interests as diverse as urban water supply, hydropower, flood control, navigation, and irrigation are now considering how to modify their operations to integrate greater accommodation for ecosystem health. Although the motivations for an integrated approach may vary (economic, social, political, environmental, etc.), sustainability has entered our water management lexicon.

This issue of *IMPACT* includes a series of articles that explore the practical side of this trend in water management. We have purposefully left the philosophical underpinnings of and theories behind what has motivated this paradigm shift to other authors. Through the articles included in this issue, we hope that readers will gain a better sense of how this approach is being applied across the country, what tools and methodologies are available to support these efforts, and how one water management agency – the U.S. Army Corps of Engineers – has integrated this approach into their management. Collectively, these articles strive to demonstrate what is possible when we begin working across institutional boundaries and professional disciplines.

The Nature Conservancy is committed to creating a future in which Earth's natural systems are conserved and managed in a sustainable manner for people and nature. Its efforts in working with water managers, scientists, engineers, and others are not an exception to this approach (visit www.nature.org/freshwaters for more information). We hope that this paradigm shift - and the articles included in this edition of *IMPACT* - inspire you as much as they motivate us.

COLLABORATION AND ENVIRONMENTAL FLOWS

Clay J. Landry

With summer in full swing, temperatures are rising across the country. These stresses of summer temperatures coupled with low winter snow and rainfall have left many rivers in places like southern California, the Great Lakes region, and central Alabama water short. The challenges our rivers face this summer may be only the beginning as long term climate changes start to unfold. A recent report by the Intergovernmental Panel on Climate Change (IPCC) warns that river flows throughout the globe are at risk as climate change becomes more acute. While this report may be dire, water users, river managers, conservationists, and scientists are working diligently and collaboratively to address and to balance water needs with environmental flows.

One such partnership began in 2002 between The Nature Conservancy (Conservancy) and the U.S. Army Corps of Engineers (Corps) with a shared mission to restore and preserve rivers across the country. Under the Sustainable Rivers Project, the Conservancy and the Corps will work together to improve dam management in order to protect the ecological health of rivers and surrounding natural areas while continuing to provide services such as flood control and power generation.

This issue of *IMPACT* is a collaborative effort with The Nature Conservancy's Sustainable Waters Program to highlight the cutting-edge work and research the program is conducting. I would like to give a big thanks to Nicole Silk and Andrew Warner of The Nature Conservancy for their hard work in organizing this unique and informative issue as well as their continued dedication to river protection.

Nicole Silk is Deputy Director of The Nature Conservancy's Global Freshwater Initiative. Nicole provides strategic direction and vision as well as managerial support to this global program. She oversees technical, capacity building, and policy related projects as appropriate and contributes to product and tool development related to environmental flow efforts. She also builds relationships with water management agencies, nongovernmental organizations, professional societies, foundations and donors to advance specific aspects of the program's that have greatly improved our ability to identify and study ECs in the environment.

Clay Landry is the managing director and a principal of WestWater Research, a consulting firm providing water marketing and water-asset-valuation services to a range of public and private sector clients. Landry has negotiated and advised on major water transactions throughout the United States.

