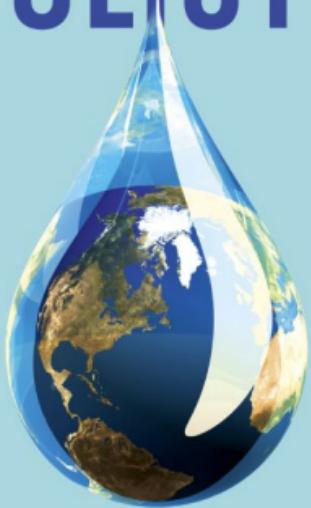


A TWENTY-FIRST CENTURY U.S. WATER POLICY



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with HEATHER COOLEY, LUCY ALLEN,
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FOREWORD BY WILLIAM K. REILLY

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and Kate A. Berry

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Foreword

EXCEPTIONAL DROUGHT IN Texas. Massive flooding in the Northern Plains. Crumbling infrastructure across the country. Pharmaceutical residues in drinking water. Depletion of the agriculturally critical Ogallala Aquifer. Invasive species in the Great Lakes. Intersex fish turning up in the Corn Belt. Coastal erosion and sea level rise along the Gulf Coast, not to mention in Norfolk, Virginia. What in the world is going on? And what are we going to do about it?

Welcome to the real world of water in the 21st century. Among the natural resource challenges facing the country, perhaps none is more important than ensuring adequate supplies of clean water for all the many needs and purposes people have. Clean water is not just a requisite for health, as important as that is, but essential for a prosperous economy, for growing food, for recreation, and for maintaining productive, functioning ecosystems—the forests, lakes and rivers, wildlife, and other resources on which all human activity depends.

Water has long been a special interest of mine throughout a career in environmental affairs. While serving as administrator of the Environmental Protection Agency in the administration of President George H. W. Bush, I put a priority on expanding programs to restore important bodies of water. I had seen firsthand how people across the country would mobilize to protect special places in their own communities, the lands and waters they had come to treasure. After my work with the EPA, convinced that water would be a flashpoint in many places around the globe, I started a private equity investment fund dedicated to improving the way water and sanitation are provided in the developing

world. In many developing countries, the consequences of the lack of these most basic services takes a steep toll on health and economic opportunity, limits the ability of girls to stay in school, and directly causes as many as 2 million deaths each year, mostly children under five years old. The sad commentary here is that many of these problems are preventable and advocates know what needs to be done, but domestic political will and often local technical expertise and financing are lacking.

Here at home, the United States today faces our own variety of persistent and emerging water troubles. Many key water laws are not well, or even adequately, enforced. Chesapeake Bay, the Great Lakes, Puget Sound, the Gulf of Mexico, the San Francisco Bay Delta, and any number of other important aquatic resources are struggling to avoid collapse notwithstanding significant federal and state investments. The Gulf and Chesapeake Bay are witnessing ever larger dead zones in recent years. Although the United States has made great strides in using water efficiently—total water use in the year 2005 was actually lower than in 1975 and per capita use is lower than it has been since 1955 despite a growing economy and population—many cities, businesses, and farms are not yet availing themselves of cost-effective technologies and practices that conserve water. Much of the nation's infrastructure is outdated. Treatment plants and underground pipes need repair and upgrading. The cost of reducing water pollution from stormwater runoff in major cities is staggering. Energy production requires large amounts of water, and demand is growing for water to produce biofuels such as ethanol and to expand natural gas production. What is more, climate change even now is altering the timing and magnitude of precipitation, putting new strains on current sources of water supply.

It is often emphasized that water problems are local and must be resolved at the local and state level. Much of the country's water law is state-based and that has been a jealously guarded prerogative. And yet, there is an essential role for the federal government to play in developing and implementing water policies. A score of diverse federal agencies are responsible for different aspects of water management and regulation, and typically they have not collaborated to any significant degree to craft a smart, coherent approach. Part of the problem is confusion over authority. Part of the problem is insufficient funds to protect and manage water resources, a situation that is, frankly, only likely to worsen as Congress tackles budget deficits and the national debt. Part of the problem is that the basic legislative authorities governing water have not been updated to account for today's water realities and for recent advances in scientific and technical understanding of both water problems and solutions. The Clean Water Act, to name one important law, was last updated in 1987 and the prospects for informed debate about reform options seem limited at best. Part of the problem certainly is that consumers do not pay anywhere near the full cost for the delivery of clean water and the collection and treatment of wastewater. Water is often underpriced and that has serious consequences for the ability of water utilities to meet a growing set of demands.

No one should doubt that current laws and regulations and the public agencies and private firms implementing them have had a beneficial effect. Many of the nation's waters

are cleaner, safer, and more productive than they would have been without the past few decades' efforts. The rub today is that these many efforts are no longer sufficient to meet the needs for managing water resources in the 21st century.

Few people are more qualified in my view to spark a robust and thoughtful conversation about reforming water policy than Peter Gleick and the Pacific Institute. A leading independent nonprofit organization, the institute undertakes research and analysis on the related and pressing issues of environmental degradation, poverty, and political conflict. In 2012, the Pacific Institute celebrates 25 years of groundbreaking work, a generation spent addressing local, national, and international problems in the fields of freshwater resources, climate change, environmental justice, and globalization. The institute aims to fill an important role by integrating science, policy, and equity issues, an interdisciplinary approach critical to forging sustainable solutions. The quality and relevance of its work in the water sector has earned the Pacific Institute well-deserved recognition, including the 2011 US Water Prize.

For this book, the Pacific Institute worked with more than a dozen organizations across the country to examine, in a series of case studies, the human and environmental impacts of the nation's often out-dated and underenforced water laws. The book looks to the future as well, offering solutions and recommendations that can lead to more comprehensive and effective water policy. The agenda here could not be more timely: Better coordination among fragmented federal programs. Better scientific and base-level information on water supply, demand, and flows. Greater monitoring and stronger enforcement. More widespread use of innovative economic tools. Updating key statutes. Incorporating the risk of climate change into planning, design, and operations of water services. And more.

None of this will come readily at a time when the country is preoccupied with the economy, with overseas conflicts, with the role of the federal government and how the country pays for the services our fellow citizens want and demand. Fragmented congressional oversight, tensions between and among federal regulators and state programs, uncertainty about the impacts of a warming world—these and other pressures will make the challenge all the more arduous.

But what choice do we have really? Water is life. We ignore that simple truth at our peril. It may well take more widespread droughts, more massive spring floods, more shocking news of water contamination or other dramatic findings to galvanize action. The game now is to be armed with analyses and ideas so when the political moment is ripe, the country's political leaders know what they can and what they should do. Herein, *A Twenty-First Century US Water Policy*—a blueprint for reform. Those who care about the country's water resource policy in all its manifestations would do well to take the themes to heart and spread the word widely.

William K. Reilly

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