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SHOPPING FOR WATER

How the Market
Can Mitigate Water Shortages
in the American West

Shopping for Water: How the Market Can Mitigate Water Shortages in the American West

Peter W. Culp, Robert Glennon, and Gary Libecap

MISSION STATEMENT

The Hamilton Project seeks to advance America's promise of opportunity, prosperity, and growth.

We believe that today's increasingly competitive global economy demands public policy ideas commensurate with the challenges of the 21st Century. The Project's economic strategy reflects a judgment that long-term prosperity is best achieved by fostering economic growth and broad participation in that growth, by enhancing individual economic security, and by embracing a role for effective government in making needed public investments.

Our strategy calls for combining public investment, a secure social safety net, and fiscal discipline. In that framework, the Project puts forward innovative proposals from leading economic thinkers — based on credible evidence and experience, not ideology or doctrine — to introduce new and effective policy options into the national debate.

The Project is named after Alexander Hamilton, the nation's first Treasury Secretary, who laid the foundation for the modern American economy. Hamilton stood for sound fiscal policy, believed that broad-based opportunity for advancement would drive American economic growth, and recognized that “prudent aids and encouragements on the part of government” are necessary to enhance and guide market forces. The guiding principles of the Project remain consistent with these views.

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NOTE: This discussion paper is a proposal from the authors. As emphasized in The Hamilton Project's original strategy paper, the Project was designed in part to provide a forum for leading thinkers across the nation to put forward innovative and potentially important economic policy ideas that share the Project's broad goals of promoting economic growth, broad-based participation in growth, and economic security. The authors are invited to express their own ideas in discussion papers, whether or not the Project's staff or advisory council agrees with the specific proposals. This discussion paper is offered in that spirit.

BROOKINGS

Abstract

The American West has a long tradition of conflict over water. But after fifteen years of drought across the region, it is no longer simply conflict: it is crisis. In the face of unprecedented declines in reservoir storage and groundwater reserves throughout the West, we focus in this discussion paper on a set of policies that could contribute to a lasting solution: using market forces to facilitate the movement of water resources and to mitigate the risk of water shortages.

We begin by reviewing key dimensions of this problem: the challenges of population and economic growth, the environmental stresses from overuse of common water resources, the risk of increasing water-supply volatility, and the historical disjunction that has developed between and among rural and urban water users regarding the amount we consume and the price we pay for water. We then turn to five proposals to encourage the broader establishment and use of market institutions to encourage reallocation of water resources and to provide new tools for risk mitigation. Each of the five proposals offers a means of building resilience into our water management systems.

Many aspects of Western water law impose significant obstacles to water transactions that, given the substantial and diverse interests at stake, will take many years to reform. However, Western states can take an immediate step to enable more-flexible use of water resources by allowing simple, short-term water transactions. First, sensible water policy should allow someone who needs water to pay someone else to forgo her use of water or to invest in water conservation and, in return, to obtain access to the saved water. As a second step, state and local governments should facilitate these transactions by establishing essential market institutions, such as water banks, that can serve as brokers, clearinghouses, and facilitators of trade.

Third, water managers should support and encourage the use of market-driven risk management strategies to address growing variability and uncertainty in water supplies. These strategies include the use of dry-year options to provide for water sharing in the face of shortages, and water trusts to protect environmental values. New reservoir management strategies that allow for sophisticated, market-driven use of storage could build additional resilience into water distribution.

Fourth, states should better regulate the use of groundwater to ensure sustainability and to bring groundwater under the umbrella of water trading opportunities. Groundwater reserves are an important environmental resource and provide strategic reserves against drought, but proper management of groundwater is also critical to the development of markets. Markets cannot work effectively if users can delay facing the realities of local water scarcity through the unsustainable use of an open-access resource.

Finally, strong federal leadership will be necessary to promote interstate and interagency cooperation in water management, as well as to coordinate essential state-level gathering of data on water supplies and water use. In particular, the Bureau of Reclamation of the U.S. Department of the Interior plays a central role in water projects across the West, and its actions will be essential in confronting the crisis.

Table of Contents

ABSTRACT	2
CHAPTER 1. INTRODUCTION	5
CHAPTER 2. THE WESTERN WATER CRISIS: LONG TIME BREWING, NOW ON THE BOIL	8
CHAPTER 3. REFORMING WESTERN WATER LAW AND POLICY	13
CHAPTER 4. QUESTIONS AND CONCERNS	28
CHAPTER 5. CONCLUSION	31
AUTHORS AND ACKNOWLEDGEMENTS	32
ENDNOTES	34
REFERENCES	35