

Changing Water Use and Demand in the Southwest

by
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Introduction

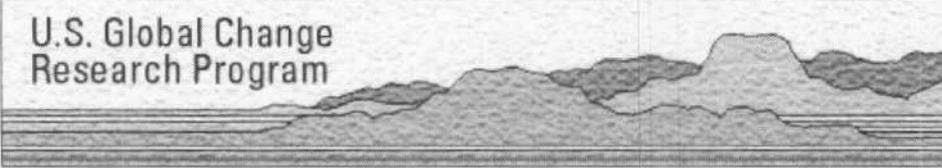
As the end of the 20th century approaches water supply and demand in the Southwest is entering a critical juncture. Management of changing water supplies must contend with many traditional demands as well as new values that are not explicitly recognized in the current approach to water resource management. This brief paper outlines some of the different aspects of changing water demand and availability in the Southwest, condensing a few more extensive reports on these issues (Morrison et al 1996; Gleick et al 1995; Pearson 1994)

The Challenge

It has become evident in recent years that established water policies, under the current laws and management regimes that have allowed a flourishing agriculture and economy in the Southwest, are not appropriate to the challenges facing water demand in the 21st century. Yet only limited institutional and policy steps have been taken to develop new tools and approaches addressing these challenges. The circumstances listed below illustrate some of the more important unsustainable aspects of water use in the Southwest.

Water demand exceeds supply

Considerably more water has been committed to users in the Southwest than water sources can adequately supply--even without considering water needs of aquatic ecosystems. In 1990, for the first time, the lower Colorado river basin (Arizona, California, Nevada) utilized its full 7.5 million acre-foot legal allotment. As well, long term groundwater pumping exceeds replenishment in many locations. It has been estimated that average annual groundwater over-pumping in the lower Colorado basin (including Mexico) totals 1.24 million acre-feet, with about 80 percent of that occurring in Arizona alone (Table 1).



U.S. Global Change Research Program

Impact of Climate Change and Land Use in the Southwestern United States

Introduction

This interactive workshop was designed to provide background information and stimulate discussion on the effects of climate variability, possible natural and human-related long-term climate change, and land-use change in the rapidly-growing southwestern United States.

This information will be used by the U.S. Global Change Research Program as part of a national assessment of Global Change issues.

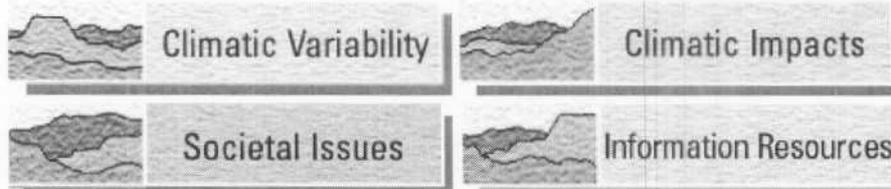
This web conference was open for interactive participation from Monday, July 7th through Friday, July 25th, 1997. The articles and comments will remain available indefinitely.

In addition to this web workshop, a three-day face-to-face workshop on this same topic was held at the Udall Center, University of Arizona, September 3-5, 1997.

How You Can Participate

- Register
- Conference Background
- Help on the Conference
- Contact the Organizers
- List Registered Participants

Major Topics of Discussion



The Workshop at a Glance

Hosted by:



U.S. Department of the Interior
U.S. Geological Survey



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