



# State Water Resources Planning in the United States

Edited by  
Warren Viessman, Jr. and Timothy D. Feather



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# STATE WATER RESOURCES PLANNING IN THE UNITED STATES

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Task Committee on State Water Resource Planning Assessment  
Water Resource Planning Council  
Environmental and Water Resources Institute (EWRI)  
of the American Society of Civil Engineers

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Warren Viessman, Jr.  
Timothy D. Feather

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The quality and breadth of water resources plans determines the effectiveness of actions to develop, manage, protect and restore the nation's water resources. Historically, the federal government was planner for large-scale water resource development. Now, the states are major players in that process. This transition has been driven by several events: devolution of federal water programs; emergence of a sustained focus on environmental protection and restoration; elimination of funding for the Water Resources Planning Act of 1965; and changes in federal cost sharing policies. The report documents features and trends in state water planning since 1986. Contemporary state water plans continue to have ties with the past, but they also reflect changing social preferences and staunch support for environmental protection and restoration. They incorporate a wide range of water quantity and quality components such as source water assessment and total maximum daily loads. There has been a rekindling of the "watershed focus," an emergence of sustainable development as a planning goal, and the introduction of new techniques such as adaptive management and shared vision modeling.

Cataloging-in-Publication Data on file with the Library of Congress.

American Society of Civil Engineers  
1801 Alexander Bell Drive  
Reston, Virginia, 20191-4400

[www.pubs.asce.org](http://www.pubs.asce.org)

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ISBN 0-7844-0847-5  
Manufactured in the United States of America.

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# Acknowledgments

The contributions to this document by the members of the Task Committee are acknowledged and appreciated. All of them shared in authoring portions of the manuscript. The information presented in this report, “State Water Resources Planning in the United States,” was obtained from web-pages, reports, and other communications provided by the state agencies engaged in water resources planning in the fifty United States. The authors are indebted to those who provided information directly and to those who were responsible for the material accessed on the web. The variability in character of the data referenced in this document has resulted in some interpretation by the authors. It is hoped that the integrity of the information has been retained in the process. References are documented at the conclusion of each state summary in Chapter 4.

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# CHAPTER 1

## INTRODUCTION

### Report Organization

Chapter One provides an overview of the report, and identifies benefits of the study. Chapter Two contains an analysis of the data obtained for each state. Commonalities, trends, and an outlook for the future are presented and discussed. Suggested components for state water resources plans are given in Chapter Three. They are based on the trends in planning objectives and technologies uncovered in the study. In Chapter Four, the status of water resources planning for each state is summarized (2004-2005). The analyses reported on in Chapter Two are based primarily on these data. Comparisons are also made contrasting the findings of this study with those of a similar 1986 analysis of state water planning practices (Viessman and Biery-Hamilton, 1986).

### Background

The effectiveness of actions taken to develop, manage, protect and restore the nation's water resources depends upon the quality and comprehensiveness of water resources planning processes. Historically, the federal government was the primary planner for most large-scale water resource developments. But since the late 1970s, the states, and others, have become major players as well.

Numerous governments, agencies and organizations play a role in water resources planning processes. In its landmark 1973 report "Water Policies for the Future," the National Water Commission stated that "development, management, and protection of water resources should be controlled by that level of government nearest the problem and most capable of effectively representing the vital interest involved" (NWC, 1973). The commission envisioned a continuing federal role in planning and financing, but believed it should gradually diminish. The report also proposed that "Regional and State entities, as well as local units of government, should assume increasing roles in the control of water resource use and preservation." President Carter's water policy reforms of 1978 included emphasis on an increasing role for the states, and the administrations that followed Carter's have continued to move in that direction. It is in consideration of the importance of the role now played by the states that this 2005 review of state water resources planning efforts has been written.

Planning involves problem identification, goal setting, and the identification of feasible alternatives for achieving the specified goals. Water resources plans address water availability (all sources); water uses (purpose, amount and timing); impacts of water development and use on water quality and the environment; deficits and surpluses in water supply; population trends; constraints on water development and