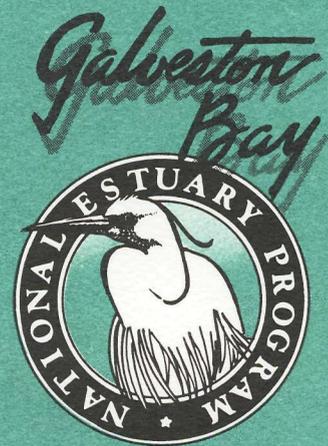


Proceedings
The Second State of the Bay Symposium
February 4–6, 1993



Galveston Bay
National Estuary Program
GBNEP-23
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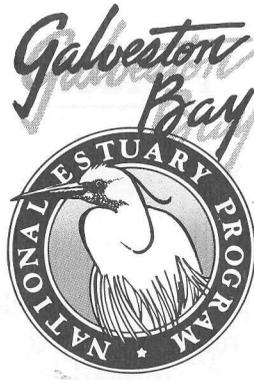
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The Galveston Bay National Estuary Program

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Preface

The Galveston Bay National Estuary Program

Texans increasingly express their expectations for a clean environment in terms of entire ecosystems. Until recently, our tendency was to view environmental problems in isolated pieces we could understand—indeed this view was institutionalized (and seemingly immortalized) in an elaborate mosaic of fragmented jurisdictions. The Galveston Bay National Estuary Program (GBNEP) is a forerunner in elevating hands-on management of coastal environments to the level of the ecosystem; and in doing so, is encouraging an integration of traditionally disparate institutions.

The GBNEP was established under the authority of the Water Quality Act of 1987 to develop a *Comprehensive Conservation and Management Plan (CCMP)* for Galveston Bay. The purpose of the CCMP is to address threats to the Bay resulting from pollution, development, and overuse. To address these threats, five years of work commenced in 1990, consisting of three phases: (1) Identification of the specific problems facing the Bay; (2) A Bay-wide effort to compile data and information to describe status, trends, and probable causes related to the identified problems; and (3) Creation of the CCMP itself to enhance governance of the Bay at the ecosystem level. The GBNEP is accomplishing this work through a cooperative agreement between the USEPA (Region 6) and the State of Texas (administered by the Texas Water Commission).

The structure of the GBNEP reflects a strong commitment to consensus-building among all Galveston Bay user groups, government agencies, and the public. The GBNEP "Management Conference" consists of six Governor-appointed committees with broad representation, totaling about one hundred individuals. Meetings of these committees are also open to the public, and public participation in policy-setting and in Bay management are considered strengths of the program. When submitted to the Governor of Texas in late 1994, the CCMP will reflect thousands of hours of involvement (much in the form of volunteer time) by individuals who in various ways use, enjoy, or help govern this vital coastal resource.

Solving Bay problems requires fundamental understanding of the complex, dynamic ecosystem processes that shape human-induced change. The sound science necessary for management of Galveston Bay has therefore received high emphasis in determining the work of the GBNEP and the expenditure of Program funds. The Scientific/Technical Advisory Committee of the GBNEP has overseen more than twenty specific projects addressing water quality, living resources, human health issues, and physical processes within the estuary. The results of these projects, along with the findings of scientists not sponsored by the GBNEP, will help assure that comprehensive planning hits its intended mark.

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Introduction

Much has been accomplished since the first State of the Bay Symposium was convened in February, 1991. In the past two years, the results of numerous scientific studies sponsored by the Galveston Bay National Estuary Program (GBNEP) have become available. Simultaneously, rising interest in coastal ecosystems and their management has stimulated related projects sponsored by universities, agencies, industries, and private organizations. Although no single volume can incorporate all the relevant work pertaining to this important ecosystem, the 59 brief invited papers printed here provide a sampling of the best and most recent. Together, the fruits of these endeavors have elevated our knowledge of the "State of the Bay" to an all-time high.

In keeping with our need to understand the "State of the Bay", the goals of this symposium are unchanged from those of the first symposium: to identify Bay projects being conducted by institutions other than the GBNEP; to promote peer interaction among the scientists involved in this research; to improve our understanding of estuarine problems in need of management solutions; and to encourage project coordination in an ecosystem context. Moreover, the science of Galveston Bay has immediate and vital application in crafting the factual foundation for the *Comprehensive Conservation and Management Plan* being drafted for final release Fall, 1994. For this purpose, findings directly contribute to development of a *Galveston Bay Environmental Characterization Report* to be published in late 1993 as a syntheses of all recent science bearing on identified management issues in the estuary.

Of particular importance are the data sets underlying Galveston Bay Studies. Special efforts are being made to assure the permanence of Bay data (at least data gathered by the GBNEP) through an agreement with the Texas Natural Resources Information Service. Many of the short papers in this proceedings also exist in more detailed versions, many of which are published in the GBNEP "Green Cover" series, available through the Galveston Bay Information Center at the Jack K. Williams Library on the Texas A&M University Galveston Campus.

This Second State of the Bay Symposium has resulted from the dedicated efforts of many individuals. On behalf of the editors of this volume, I extend our gratitude to each author involved in improving our understanding of Galveston Bay. We particularly appreciate our fruitful new partnership with Ric Jensen of the Texas Water Resources Institute, who took the lead in editing this volume. We thank Dr. Terry Whitlege and the Symposium Host Committee he chaired for active sponsorship of the Symposium itself, and in helping to conceptually guide the use of reported findings. We extend our thanks to the session chairs listed in the final program who volunteered their time and leadership skills, and finally, to the dedicated GBNEP program staff who made all the arrangements possible.

—Frank S. Shipley
Director

Galveston Bay National Estuary Program

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