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Preface

Managing the Gulf of Mexico coast in the United States has become an important practice as the population has increased along with its related development. This book considers the existing problems in the management of the physical aspects of this valuable and fragile system. Previous books by the senior author on sea-level change and on the beaches of the Gulf Coast actually led into this volume on management. Sea-level change is increasing. This condition is already a serious problem in some coastal sections and also in some specific coastal environments.

Beaches on the Gulf Coast are its most visited environments, and property along them is among the most expensive. These beaches are generally doing well, but erosion is a problem at many. Continuing construction, increasing populations, and the huge numbers of visitors annually are causing serious problems at some locations. Management approaches are varied and necessary, ranging from the perspective of individual property owners to local, state, and federal governmental agencies.

It is critical that all of the residents, visitors, and especially land managers have a comprehensive knowledge of taking care of these fragile environments. This book explains the nature of problems that have been and are still being generated along our coast. Property owners have a stake in this management, and when called upon to suggest procedures or make decisions, they need some background in the nature and problems of the coast. More importantly, the decision makers, from local community councils to the state and federal agencies, need to have information on all coastal environments and on specific conditions in these environments in order to properly administer and fund management practices on the Gulf Coast.

The book also is a resource for individuals and companies that develop and conduct management geologic and engineering practices along the coast. It is also appropriate for undergraduate students in programs concentrating on marine science and environmental science whether it is the primary text or used as a supplement to other publications.

The authors have a combined experience in coastal research of more than 100 years. Each has investigated the Gulf of Mexico as well as other coasts in the United States and throughout the world. Our experience has included academia, private enterprise, and consulting. In addition, we have worked with the engineering community and with all levels of government. We hope that you find this volume to be informative and a significant help to your interactions with the Gulf of Mexico coast.

Note: The absence of numerous reference citations in this book is due to the nature of most of the sources for the specific data. The bulk of the data came from engineering consulting firms that conduct projects on the Gulf of Mexico coast of the United States. These firms provided data to the authors on such items as volumes of material dredged from borrow areas, volumes of material placed on the beach, length of a beach project, etc. These data are undoubtedly in reports on various projects that are not published and not generally publicly available. A list of these firms is provided in Appendix 2 to help the concerned reader locate the origin of the data.