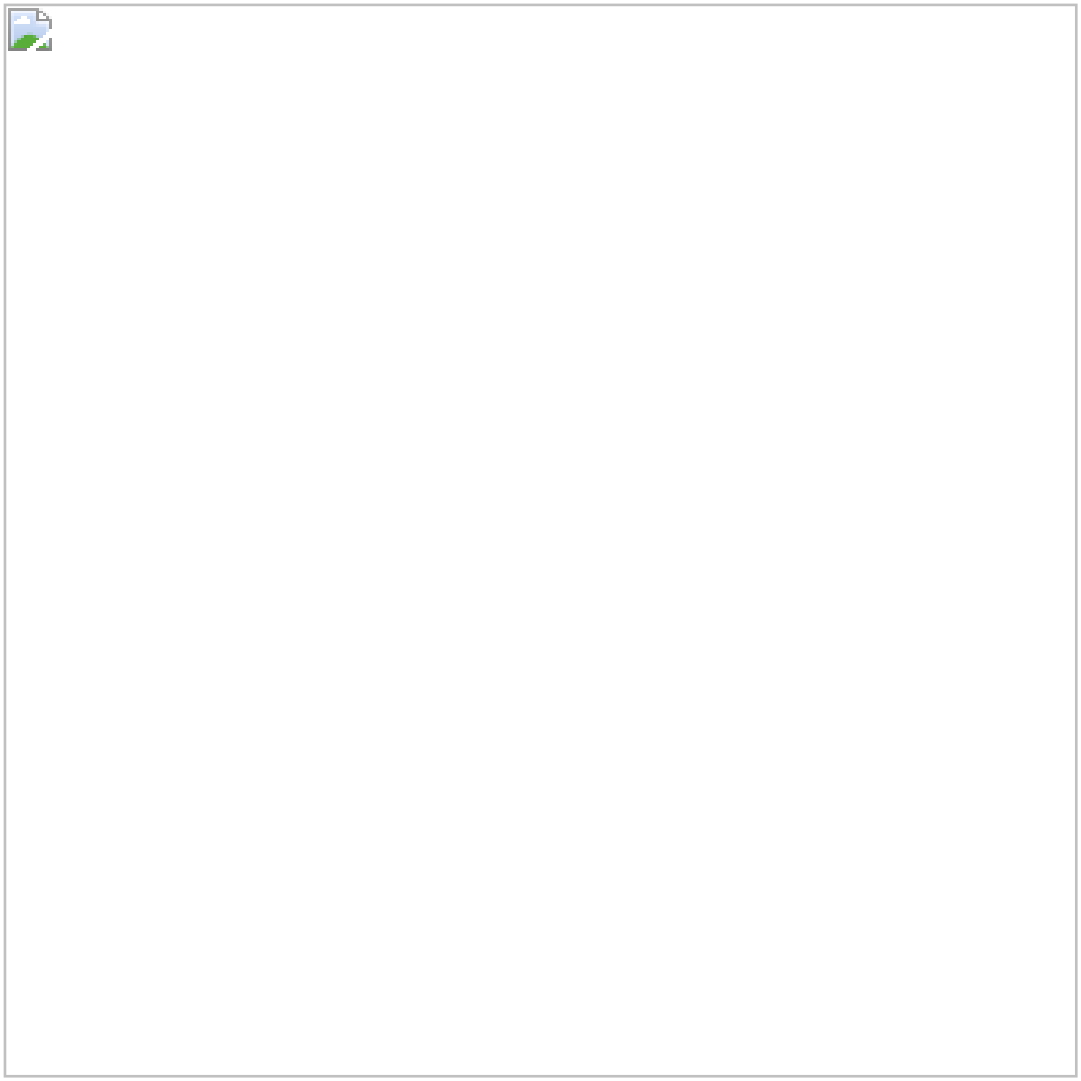

PREFACE

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PREFACE

Sustainable surface water is an important ingredient for maintaining a resilient built and natural environment. Society requires it for drinking water and irrigation purposes. Protection of surface water quality and quantity is essential to maintain precious natural ecosystems that benefit all. For an example, about 77 percent of the freshwater used in the United States in 2005 came from surface-water sources. Water quality in natural surface water systems (*e.g.,* streams, rivers, lakes, estuaries, bays, and coastal wetlands) is an important factor to aquatic ecosystems. Climate change could affect surface water systems in a variety of ways: including sea level rise, changes in the frequency and intensity of storms, increases in precipitation and sediment loads from watershed, and increase in water temperatures. The impacts of climate change are likely to worsen many coastal problems, such as shoreline erosion and wetland degradation, and will cause the increase of floods and droughts. Understanding the potential impacts of climate change on surface water systems are clearly important for coastal and water resources management.

The Special Issue of Climate Impacts on Surface Water Systems, Journal of Coastal Research, collects twenty-two papers to address climate impacts on surface water systems from a variety of viewpoints. Topics include sea-level rise impacts on coastal wetlands, shoreline positions, coastal reclamation, storm surges, extreme water level, estuarine sediment transport, salinity intrusion, estuarine primary productivity and oysters. The special issue also covers topics of climate change impacts on glacier shrinks in a mountain basin, rainfall runoff and sediment loads in coastal watersheds, water balance in river and lake systems, floods in urban areas and watersheds, drought analysis, and regional climate change scenarios analysis. We hope that this special issue will become a valuable reference for graduate students, research scientists, engineers, and water resource managers.

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