

## **Managing Coastal Urbanization and Development in the 21<sup>st</sup> Century: Balancing Human Dimensions and Environmental Quality Issues (60)**

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The most important factor in the decline of environmental conditions within the coastal zone has been the unprecedented increase in human population growth, particularly in the southeastern United States (US). Currently more than half of the US population lives in coastal communities adjacent to the more than 66,645 miles of estuarine and coastal shoreline. The US population has increased by 28% since 1980, and is expected to increase by another 12 million by 2015. The greatest rate of population change has been in the southeastern US (58%) followed by the Pacific (46%) and Gulf of Mexico (45%). Increased coastal population is also a problem globally, as more than 55% of the world's population lives within 50 miles of the coast, 33 of the 50 largest cities in the world are located in coastal areas, and more than 80% of world commerce is transported by ships. The compression of the population into the coastal zone, which represents only 8% of the Earth's surface, creates a dilemma for environmental managers, who are faced with the daunting task of trying to maintain environmental quality in the wake of unbridled urbanization and population growth. Unprecedented coastal development may result in significant impacts in environmental quality including altered hydrology and resulting increased NPS pollution of nutrient, chemical, and microbial contaminants that may degrade water and sediment quality and adversely affect resource health. Results from the Urbanization in Southeast Estuarine Systems (USES), the Tidal Creek Project (TCP) and the Land Use-Coastal Ecosystem Study (LU-CES) conducted in estuarine regions of the southeastern US are discussed in terms of balancing human uses of the coastal zone and ecosystem health issues.