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Wetland Loss and Restoration Options in Southern Louisiana

ROBERT G. DEAN, University of Florida

Wetlands are productive landscape features of the broad Mississippi River Delta system. In addition to their ecological services of providing habitats for a variety of species including juvenile commercial and recreational fish, they provide a valuable wave reduction role during severe storm events characterized by elevated water levels and high waves. Currently, these wetlands are stressed by a combination of natural and human-related forces resulting in rapid loss rates. Although many factors contribute to wetland loss rates, the single greatest factor is the shunting of river borne sediments offshore into deep water. Navigational interests benefit greatly from the present fixed location of the main navigation channel at Southwest pass with its terminus at the edge of the continental shelf such that the sediment load is discharged into deep water. The Mississippi River Delta region is subsiding at up to more than 10 times the Eustatic rate of sea level rise and thus the wetland and barrier island systems require these sediments for maintenance and growth. With the increasing scarcity and costs of energy, it is highly desirable that wetland restoration be done using natural forces to the degree possible. Absent legal issues, a pragmatic approach could be to identify those areas where progress can be made with realistic investments of economic and energy resources and to accept that areas with less benefit per investment will continue to degrade. The paper will review various options and discuss obstacles and opportunities.