

DEVELOPMENT OF A SOIL EROSION MODEL TO PREDICT VULNERABILITY OF VARIOUS MARSH ECOSYSTEMS

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The federal government recognizes soil as a strategic natural resource that must be understood, managed, and conserved for the health of the nation. The National Cooperative Soil Survey (NCSS) Program is a partnership, led by the Natural Resources Conservation Service (NRCS), of federal land management agencies, state agricultural experiment stations, and state and local units of government that provide soil survey information necessary for understanding, managing, conserving, and sustaining the nation's limited soil resources. Soil scientists, working under the auspices of the NCSS, have completed the process of mapping the soils of the State of Louisiana. In the coastal zone, soil characteristics such as thickness of layers, mineral soil texture, organic fiber type, firmness, potential decomposition when disturbed, water layers, salinity, and vegetation are recorded at each site observed. From the information gathered, calculations can be made related to average decomposition rates for specific layers or for all layers, decomposition total for the whole soil, subsidence potential, and depth or thickness of material loss to specific causative agents. Using these calculations, the geographic areas most prone to land loss can be identified. This process will be explained and demonstrated.