



USDA-CSREES 2007 National Water Quality Conference

Water Quality and Coastal Development in South Carolina: Stormwater Management Challenges, Outreach Programs, and Research Opportunities

Urban development within the South Carolina coastal zone is occurring at a tremendous rate. Those areas that have already been developed contribute to a significant increase in the percentage of impervious surface area per total area of land. Retention ponds are the typical stormwater management practice in coastal South Carolina. As these ponds are often viewed as amenities for coastal residents, public awareness must be increased because most homeowners do not recognize the connection between their own actions and water quality, especially with respect to stormwater and polluted runoff. Not only is public awareness necessary for improved water quality, but public education and involvement is also a required component of NPDES Phase II permitting. This permitting process officially became effective in South Carolina on March 1, 2006. The Clemson University Cooperative Extension Service has been involved in several distinct activities to educate the public about stormwater. Clemson's major thrusts for public education have been workshops and demonstrations directed toward homeowners, community associations, elected and appointed officials, and public works and planning staffs. These programs provide the target audiences with (1) ideas for the development or enhancement of stormwater ordinances and covenants, (2) opportunities to learn about alternative management strategies, and (3) demonstrations to engage the public about how they can make a difference in protecting water quality. Rain gardens, pervious surfaces and landscapes, and vegetated buffers are examples of the types of potential solutions that participants are encouraged to implement in order to locally address water quality management issues. In this presentation, these programs will be discussed, as well as research efforts that are being proposed in order to better understand the effectiveness of alternative stormwater management strategies at the individual and development tract scales, particularly in coastal areas with shallow water tables.

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