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## **The Under Lying Link Between Residential Storm Water Management Design and Development By A Managed Body Of Water.**

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Since the beginning of time, basic human needs have not changed. There is still a need for water, food, energy, and air. So, then why is the phase of "sustainability" becoming such a presence in our society? Two contributing factors are an increase in the world's population and consumption practices that are exceeding the carrying capacity of the world's ecosystems. These problems are damaging the natural systems that once supported the world. Research needs to be conducted to review current development methodologies and identify areas that could be improved, especially with regard to impacts on water quality.

This study will focus on a potential development in Smith County, Mississippi. The site is located in the Bienville National Forest, where a preliminary master plan for a 900 acre recreational lake has been designed. The lake will offer features that include a high and low impact development types. The activities associated with the high impact include a conference center, traditional and RV camping, picnicking, small cabins and lodging, and a marina. The low impact activities include fishing, boating, swimming, biking, hiking, horseback riding, and primitive camping.

The design will examine infrastructure practices as they apply to sustainable residential design. This report will be part of an undergraduate capstone project in the Department of Landscape Architecture at Mississippi State University which will focus on the research and implementation of storm water and waste water practices as they apply to residential community design. This presentation will provide specifics on how new design practices can be incorporated into future master planning approaches that will be sustainable and functional.

**Keywords:** Water Quality, Hydrology, Sustainability, Wastewater, and Surface Water

**Presentation:** Poster and Presentation

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