

Hurricane Katrina: Impacts on Forestland, Extension Responses, and Lessons Learned from One of America's Worst Natural Disasters

H. Glenn Hughes (corresponding author)¹, Butch Bailey² and Gwen Smith³

¹ Extension Professor of Forestry, Mississippi State University, Purvis, MS, USA, ghughes@ext.msstate.edu

² Extension Associate, Mississippi State University, Purvis, MS, USA, butchb@ext.msstate.edu

³ Hancock County Director, Mississippi State University, Bay St. Louis, MS, USA, gsmith@ext.msstate.edu

Hurricane Katrina roared through Mississippi on August 29, 2005, quickly becoming one of the worst natural disasters in U.S. history. In her path, some 1.2 million acres of forestland were damaged in Mississippi alone, destroying an estimated \$888 million in timber, or about two years worth of annual harvest, in one day. Hardwood bottomlands, pine sawtimber, and recently thinned pine stands were most severely damaged. Eighty percent of the state's population was without power, and restoration efforts in the most heavily affected areas will take years.

Extension Forestry personnel responded quickly to this event. Within three weeks, the first of 36 workshops was conducted focusing on timber salvage and forest taxation. These workshops were attended by 2,225 landowners owning 217,396 acres of forestland, and participants estimated the economic benefit at \$6.6 million. In the summer of 2006 Extension Forestry shifted focus to restoration after the salvage, and 6 workshops were conducted in some of the most impacted counties. Extension Forestry personnel also examined mixed species forest stands to assess hurricane impact differences among loblolly, slash, and longleaf pines. Loblolly was least tolerant of hurricane-force winds, and longleaf was most tolerant.

The urban forestry response focused primarily on removing hazardous trees. However, problems arose in coastal counties affected by the storm surge where thousands of trees apparently survived the initial flooding, but began dying months later. Federal regulations prohibited reimbursement of contractors for the removal of standing dead trees unless they were leaning more than 30 degrees. Extension's role in conducting an urban tree inventory, and ultimately enabling standing dead trees to be removed, is reviewed.

Lessons learned by private landowners and Extension Forestry personnel are reviewed. These include issues related to timber taxation, diversification, an increased focus on risk, and protection and restoration of our urban forest.