



**CESU Final Report Summary for  
An Economic Analysis of Low Water Levels in Hartwell Lake - W912HZ-09-2-0005**

**Purpose:** This study examines the regional economic impacts of low lake levels on the six county region bordering Hartwell Lake. In addition to the original reasons for its creation, the lake is widely used today for tourism and recreation and is a key element in regional water quality, water supply, and fish and wildlife management efforts.

**Location:** Hartwell Lake is a United States Army Corps of Engineers (USACE) impoundment of the Savannah River constructed between 1955 and 1963 as a part of a flood control, navigation and hydropower project on the borders of South Carolina and Georgia.

**Methods:** Two analytical tools were used to estimate the economic impact of low lake levels on the six county region bordering Hartwell Lake. Linear and nonlinear regression analysis and other statistical techniques were used to evaluate the strength of the relationships between key measures of lake-related activity and water levels in Hartwell Lake. Where appropriate, these analyses take into account the effects of the recent recession and seasonal factors. These measures are: Recreation use at USACE facilities on Hartwell Lake, Sales of real estate with direct lake access (lakefront), and Gross retail sales in selected sectors of the economy. Results from the statistical analyses of lake level with real estate transactions and gross retail sales were entered into the Regional Dynamics (REDYN) input-output modeling engine to estimate the total regional economic impacts of changing lake levels on the six county Hartwell Lake region. These results include direct economic impacts (jobs and income created directly from the exchange of real estate or from the sale of goods and services), and indirect and induced impacts (—spillover generated in the broader economy from the direct impacts).

**Results:** From April 2007 through December 2008, widespread regional drought conditions caused persistent low water levels in Hartwell Lake. During this period, the lake remained well below full pool, making some private docks, public boat ramps, and marinas unusable and reducing traffic at lake-oriented businesses. From April 2007 through December 2008, low lake levels are estimated to have resulted in an \$18.8 million decline in regional output, a \$6.2 million decline in aggregated household after-tax income, and a decrease in net local government revenues of \$805,000. Job loss over the period is estimated to be 23 jobs (in full time equivalents). For every one foot increase (or decrease) in lake level, monthly visits to USACE recreation sites on Hartwell Lake increased (or decreased) by nearly 21,200 visitors. For the entire region, this extended period of low water levels in Hartwell Lake reduced output by only approximately one-tenth of one percent. This study demonstrates that Hartwell Lake is not a primary economic driver in the region and provides evidence that the six counties surrounding Hartwell Lake have sufficient economic breadth and depth to weather prolonged

low lake levels without realizing substantial declines in their economic well-being.

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