



## *Economic Impacts From Tennessee Valley Authority's Melton Hill Reservoir's Shoreline Property Owners Recreational Expenditures*

**Melton Hill Reservoir Facts:** Located on the Clinch River in East Tennessee, the reservoir extends almost 57 miles upstream from Melton Hill Dam to Norris Dam. The reservoir is estimated to have 193 miles of shoreline with a water surface area of 5,470 acres. Water in the reservoir only fluctuates about four feet throughout the year since Melton Hill, unlike other TVA reservoirs, is not used for flood control but for power production.

Approximately 337 Melton Hill Reservoir shoreline property owners with dock permits were surveyed September through December in 2006. Approximately 97.2 percent (328) of the shoreline property owners were permanent residents; the remaining (9) were part-time. The annual mean expenditure for all fixed expenses was \$548.82 (Table 1). The top five mean fixed expenditures were watercraft purchases at \$3,186.00, followed by dock/dock maintenance (\$1,503.00), boat repairs/service (\$159.45), dock/marina fees (\$37.28), and vehicle repairs/service (\$18.64). For annual variable expenses, the average mean expenditure across all categories was \$84.30 (Table 2). Likewise, for annual mean variable expenditures, the top five expenditures were fuel for watercraft at \$532.25, followed by food and beverage (\$481.06), fuel for vehicles (\$112.47), fishing supplies (\$96.68), and other expenses (\$68.22).



This analysis employed an input-output model, IMPLAN, to measure the economic impacts from Melton Hill Reservoir shoreline property owners.

Numerous communities and/or towns around the lake are impacted economically. Using survey data, annual multi-county (counties surrounding the reservoir) and state-wide economic impacts were conducted from property owners along the reservoir (Table 3). For the multi-county analysis, estimated direct and total impacts (economic activity) were \$2.1 million and \$4.2 million, respectively, as measured through total industry output. This impact financed 46 jobs. Total value added was estimated at \$2.6 million. For the state model, total impacts were estimated at \$4.5 million of economic activity. Estimated total impacts for value added were \$2.8 million. Estimated total number of jobs was 47.

Multipliers measure the additional total industry output, employment, or total value added for an additional million dollars in economic activity. Total industry output (economic activity) multipliers ranged from 2.00 for the multi-county analysis and 2.14 for the state. For every dollar Melton Hill Reservoir shoreline property owners spent, an additional \$1.00 was generated throughout the multi-county analysis or \$1.14 throughout the

**Table 1. Annual Mean Fixed Expenditures from Melton Hill Reservoir Shoreline Property Owners**

Category	Average
<u>Average Fixed Expenses</u>	
Watercraft Purchases	\$3,186.00
Dock/Dock Maintenance	\$1,503.00
Boat Repairs/Service	\$159.45
Dock/Marina Fees	\$37.28
Vehicle Repairs/Service	\$18.64
Fishing License/Fees	\$12.71
Private Land Access Fees	\$10.28
Other Expenses	\$9.25
Hunting License/Fees	\$2.81
<u>Overall Average</u>	<u>\$548.82</u>

**Table 1. Annual Mean Variable Expenditures from Melton Hill Reservoir Shoreline Property Owners**

Category	Average
<i>Average Variable Expenses</i>	
Fuel for Watercraft	\$532.25
Food & Beverages	\$481.06
Fuel for Vehicles	\$112.47
Fishing Supplies	\$96.68
Other Expenses	\$68.22
Retail Goods	\$32.26
Camping Supplies	\$10.04
Hunting Supplies	\$6.58
Entertainment	\$3.42
Lodging Expenses	\$2.92
Horseback Riding	\$2.56
Boat Rental Fees	\$0.34
Guide/Outfitter Fees	\$0.00
Tour Fees	\$0.00
Other Equipment Rentals	\$0.00
Souvenirs/Gifts	\$0.00
<i>Overall Average</i>	\$84.30

state. Likewise, employment multipliers ranged from 1.91 for the multi-county analysis and 1.96 for the state. For every job created based on Melton Hill Reservoir shoreline property owners expenditures, an additional .91 to .96 jobs are created in other industries throughout the state.

For indirect impacts, the top five industries impacted were real estate, management of companies and enterprises, banking, telecommunications, and wholesale trade. Likewise, for induced impacts, owner-occupied dwellings, state and local education, wholesale trade, real estate, and health care professionals (doctors, dentists, etc.) were the top five industries impacted.

***Total Industry Output*** represents the estimated annual dollar value of production summed across all industries and is a measure of total economic activity. Employment represents the estimated number of total wage and salary employees (both full- and part-time), as well as self-employed. ***Total Value Added*** represents the estimated dollar value of wages and salaries including benefits, self-employed income, interests, rents, royalties, dividends, profits, plus excise and sales taxes.

***Direct Impacts*** represent the estimated economic impacts of activities from Melton Hill Reservoir shoreline property owners from the survey conducted. ***Total Impacts*** are the sum of direct impacts, plus the estimated economic impacts from businesses (i.e., restaurants, lodging, fuel, retail sales, etc.) providing goods and services (***Indirect Impacts***), and increased expenditures of new household income (***Induced Impacts***) as a result of shoreline property owners' activities.

**Table 3. Annual Estimated Economic Impacts from Melton Hill Reservoir Shoreline Property Owners**

	Total Industry Output <sup>a</sup>		Employment		Total Value Added <sup>a</sup>	
	Direct	Total	Direct	Total	Direct	Total
	(Million \$)		(Number)		(Million \$)	
Multi-County <sup>b</sup>	\$2.1	\$4.2	24	46	\$1.3	\$2.6
State	\$2.1	\$4.5	24	47	\$1.3	\$2.8

<sup>a</sup>2006 dollars; <sup>b</sup>Multi-County region includes Anderson, Blount, Campbell, Claiborne, Cocke, Grainger, Hamblen, Hancock, Jefferson, Knox, Loudon, Morgan, Roane, Scott, Sevier, and Union counties.

AIM-AG/AGRI-Industry Modeling & Analysis Group: (Dr. Burton English, Dr. Kim Jensen, and Mr. Jamey Menard), Department of Agricultural Economics, The University of Tennessee Institute of Agriculture. For more information concerning AIM-AG, please contact the group at 865/974-7231 or visit the web site at <http://web.utk.edu/~aimag/>. Data generated for this report from IMPLAN pro, Minnesota IMPLAN Group, 2006. Surveys conducted by the Human Dimensions Research Lab: (Dr. Mark Fly, Becky Stephens, April Griffin, Susan Schexnayder, and Katie Percy), Department of Forestry, Wildlife, and Fisheries, The University of Tennessee, Institute of Agriculture.