Report as of FY2006 for 2006KY67B: "Property Taxation, Forest Fragmentation and Development in Kentucky's Green River and Lower Cumberland River Watersheds"

Publications

- Dissertations:
  - Brodbeck, Scott, 2007, Property Taxation and Forest Land Assessment in Kentucky Watersheds, MS Thesis, Department of Forestry, University of Kentucky, Lexington, Kentucky, 49 p.
- Conference Proceedings:
  - Brodbeck, Scott and Tamara Cushing, 2007, Property Taxation and Forest Fragmentation in Kentucky Watersheds, in Proceedings of the Kentucky Water Resources Annual Symposium, Kentucky Water Resources Research Institute, Lexington, Kentucky, p 11-12.

Report Follows

Problem and Research Objectives

The Green River and the Lower Cumberland River watersheds in Kentucky are among the top fifteen watersheds in the United States expected to experience increased development and forest fragmentation according to the U. S. Forest Service. As development pressures influence land uses and property values, the likelihood of forests being converted to other uses is a potential threat to water quality because of the loss of the natural filtration services that forested areas provide (serving as buffers to reduce the amount of sediment and other pollutants carried to streams by runoff). The objectives of this research were to characterize current practices used to assess timberland for property tax purposes in counties located in the Green River and Lower Cumberland River watersheds in Kentucky and to determine the impact of property taxes on profitability.

Methodology

Personal interviews were conducted with 36 property valuation administrators in counties in the study area (defined by the selected watersheds). Each administrator was asked how an assessed value was determined for forested property in their county and to provide a value (or range of values) based on a particular set of characteristics. After the information on assessment methods was gathered, the actual values were used to generate a property tax bill for a hypothetical property and to determine potential impact on profitability. Property valuation methods were identified, grouped, and used to compare the net present value of a single forest rotation for a hypothetical property using the different assessment methods reported. A sensitivity analysis was performed to determine the impact of each of the assumptions used in calculating net present values. As long as forest management remains profitable, landowners will be less likely to fragment their forest properties.

Principal Findings and Significance

Seventy-five percent of the counties surveyed were using a state generated guideline with local adjustments to determine assessed value for forested land. The eight remaining counties used methods such as a previous assessor's value or flat values to determine assessed value. The range of property assessment values was $95-$500 per acre, resulting in tax bills from $0.83 to $3.22 per acre in the counties studied. When this tax range was applied to a hypothetical property and the time value of money was accounted for, forest management was sometimes not profitable. This was particularly true when assessors strayed from the published state guidelines and based the assessed value on "personal knowledge of the county." Inconsistent valuation methods can cause two otherwise similar properties to differ in profitability based solely on taxes and this could contribute to further forest fragmentation in the study area.