



Measuring rural homeowners' willingness to pay for land conservation easements

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Abstract

Rapid growth of rural communities in the Blue Ridge Mountains of Macon County, North Carolina has been giving rise to concerns over declining environmental quality and increasing need for land-use policy. This paper examines willingness to pay (WTP) for hypothetical conservation easements as an alternative land-use policy for the county. Despite the fact that Macon County has struggled to adopt any land-use policy, the stated WTP for conservation easements of our study shows that homeowners potentially value the use of conservation easements. Estimated household's WTP to participate in an easement program ranges from \$10.97 to \$21.79 per year per household depending on modeling assumptions. Aggregate county WTP ranges from \$360,772 to \$109,825 depending on aggregation stance. This suggests a range of 53–175 acres entering the program per year, and a consequent decline in the rate of land conversion, compared to the 1987–1997 period, of 14–46%. © 2005 Elsevier B.V. All rights reserved.

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During the last two decades, there has been rapid growth in the Blue Ridge Mountains of North Carolina. Macon County, situated in the Blue Ridge Mountains, is an area specifically experiencing this rapid development. In the past decade, the county grew from 20,178 people to 29,811, an increase of nearly 48% and the number of housing units increased from 13,358 to 20,746, a gain of 55%. The higher increase of housing units relative to population growth reflects part-time residents and those who spend

weekends in the mountains. For example, 45% of the new residences built in the county in 2002 were second homes. Some of the residents commute to jobs in the Atlanta area, 100 plus miles south of Macon County. An increasing number of rural homeowners, interfacing with neighboring urban communities, have expanded second home communities in the county at a rapid pace. The unprecedented growth of the metropolitan Atlanta area's northern suburbs like Cherokee County, Georgia (population of 51,748 in 1980 to 141,903 in 2000, a gain of 174%) parallels the rapid growth rate of Macon County.

This rapid growth of rural counties, interfacing with neighboring urban communities that are not direct urban-fringe communities, gives a new dimen-

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sion to the issues of the wildland–urban interface. The November 15, 2002 issue of the Asheville Citizen-Times quotes, “With four-lane access, it is not inconceivable that Macon will become part of the Atlanta metropolitan area in the foreseeable future.” This rapid growth of Macon County has given rise to concerns over declining environmental quality and an increasing need for land-use policy. Scientific monitoring revealed that the water quality of certain streams of the county had declined significantly during the last two decades (N.C. Division of Water Quality, 2002). In addition, public services such as sewage treatment and water delivery have been severely strained.

Despite the common recognition of the consequences of such rapid growth, the perceptions about land-use policy among homeowners of the county are divided. Some oppose land-use policy because of concern over private property rights. Others support land-use policy with the hope for better managing development. Regardless of the divided perceptions, Macon County’s Vision 2025 Committee unanimously approved its 72-page draft land-use plan on November 2001, the first of its kind in Western North Carolina. The draft of the land-use plan focuses on the regulation of highway corridors and high-impact uses such as polluting industries. The Macon County Board of Commissioners had also proposed a residential element in the regulation, but this was dropped after residents protested. According to a report by Asheville Citizen-Times, bumper stickers urging residents to “Protect Freedom/Stop Zoning” cropped up before a public meeting on the issue in 2002. The countywide land-use plan was shot down in 2002 after residents complained it had been drafted by the planning board without an adequate opportunity for the public to participate, contribute, or even understand the process. It was the third time in 10 years that attempts at land-use planning have been denied. After the controversial proposal for the countywide land-use plan, the Macon County Planning Board has just completed a series of 11 public input meetings on high-impact land-uses and will now consider new ordinances to propose to county commissioners.

Regardless of this recent turmoil and the challenges that the county has faced regarding a land-use plan, conservation easements have been relatively success-

ful in the county in recent years as an alternative way of influencing sustainable development. Conservation easements are a legal agreement between a landowner and a land trust or government agency that permanently limits development of land. These easements are a less regulatory and more voluntary policy tool that are among the fastest growing methods of land preservation in the United States today. They can be defined to exclude certain activities on private land, such as commercial development or residential subdivisions. Funding for a conservation easement can be designed to come from a variety of sources, including local residents’ donations and federal matching funds of those donations as accommodated under the Farmland Protection Program of the 1996 FAIR Act and the Farm Security Act of 2002.

The use of conservation easements was introduced in the county when The Land Trust for the Little Tennessee (LTLT) was incorporated as a non-profit entity in 1999. The LTLT made its first conservation purchase in November of 1999, with the aid of the NC Clean Water Fund and the Lyndhurst Foundation. The Trust purchased a 60-acre, 19th century plantation farmstead along the confluence of the Tessentee Creek and the Little Tennessee River. It was the first property along the 57 miles of free-flowing Little Tennessee River to be put into a land trust. Another 3.9 acres adjacent to the farm was added in 2000. Now, the LTLT and other individuals and organizations have protected about one-third of the river frontage along the Little Tennessee River.

Among the most well publicized conservation easements of the area is the “Needmore Tract preservation.” The Needmore Tract is 4600 acres of land located in Western North Carolina; 1100 acres are in northern Macon County and 3500 acres are in southern Swain County. The tract of land was transferred from Nantahala Power and Light, a division of Duke Power, to Crescent Resources, the power company’s development arm in January 2000. That transfer had many worried that the land, which contains farms, wilderness areas and some private homes, might be bought by a developer. The Needmore Tract was purchased by the NC Wildlife Resources Commission in January of 2004. Out of the \$19 million purchase price, \$2 million was raised by private contributions. The parcel is considered by many preservationists to be one of the most bio-

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