

**Land Conversion in South Carolina:  
State Makes the Top 10 List**

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The National Resource Inventory report prepared by the United States Department of Agriculture was released in December. The report indicates that between 1992 and 1997 15.8 million acres were converted from farms and woodlands to a developed land status. Nationally there has been a 20 percent increase in rural land converted to urban uses.

Among individual states, South Carolina made the top ten list with 539,700 rural acres converted for development between 1992 and 1997. The report indicated that South Carolina had the 9<sup>th</sup> highest rate of land conversion among the 50 states as indicated in Table 1.

**Table 1. Total Acres of Land Conversion by State, 1992-1997 (thousand acres)**

<b>Ranking</b>	<b>STATE</b>	<b>Acres converted to developed land (1,000 acres)</b>
1	Texas	1219.5
2	Pennsylvania	1123.2
3	Georgia	1053.2
4	Florida	945.3
5	North Carolina	781.5
6	California	694.8
7	Tennessee	611.6
8	Michigan	550.8
9	<b>South Carolina</b>	<b>539.7</b>
10	Ohio	521.2

Source: USDA, 1997 National Resource Inventory Summary Report

Texas, Pennsylvania, Georgia and Florida top the list, while California had only 28.7 percent more land converted than South Carolina.

Because of differences in relative size between the states, this report shows land conversion based on land area and population base as indicated in Table 2.

**Table 2. Total Acres of Land Conversion by State Adjusted by Acreage and Population, 1992-1997**

Ranking	STATE	% increase in developed land	STATE	% total land developed	STATE	Acres developed per person
1	WV	38.8%	NJ	6.0%	NM	0.220
2	NM	35.7%	MA	5.7%	GA	0.156
3	PA	35.0%	PA	3.9%	WV	0.153
4	GA	33.1%	MD	3.6%	<b>SC</b>	<b>0.150</b>
5	TN	30.5%	GA	2.9%	MT	0.149
6	<b>SC</b>	<b>30.2%</b>	<b>SC</b>	<b>2.8%</b>	ME	0.136
7	ME	29.0%	DE	2.8%	TN	0.122
8	MS	23.3%	FL	2.7%	MS	0.120
9	NC	23.0%	NC	2.5%	NC	0.114
10	AL	22.7%	TN	2.3%	WY	0.114

Source: USDA, US Census Bureau and Jim Self Center on the Future, Clemson University.

The first section of the table depicts the percentage of total rural land converted to development from 1992 to 1997. On that basis, South Carolina ranks 6<sup>th</sup> in the nation with 30.2 percent of farm and forestland converted to development over that five year period. Using total land area as the base, the state still ranks 6<sup>th</sup> in terms of land conversion with 2.8 percent of land area converted during this time period.<sup>1</sup> Adjusting for population base, South Carolina converted 0.150 acres per capita from 1992 to 1997. That conversion rate ranked the state 4<sup>th</sup> in the nation trailing only New Mexico, Georgia, and West Virginia.

Land conversion rates have been over 20 percent per decade for some time as indicated in Table 3. During the five year periods of 1982-87 and 1987-92, conversion rates amounted to 13.0 and 14.1 percent, respectively. Over the five year period between 1992 and 1997, the rate of increase more than doubled to 30.2 percent.

<sup>1</sup> Total Land Area refers to the total area of the state less land cover classified as water.

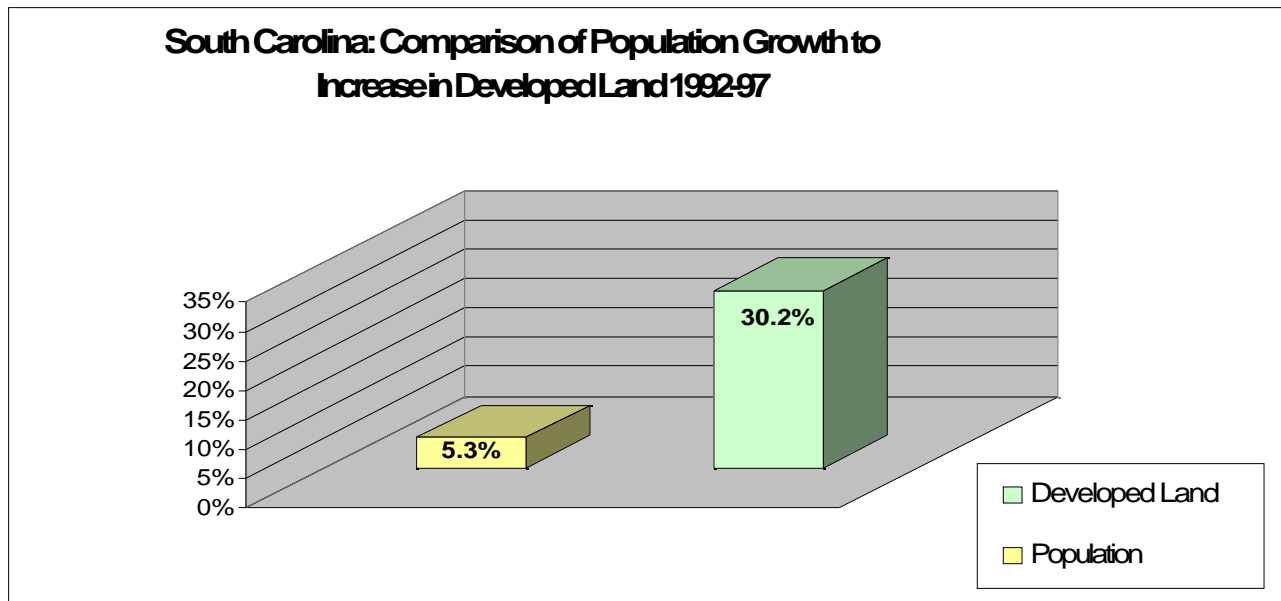
**Table 3. Rates of Land Conversion in South Carolina at Five Year Intervals, 1982-1997**

Time Period	1982-1987	1987-1992	1992-1997
<b>% increase in developed land</b>	13.0%	14.1%	30.2%

Source: USDA and Jim Self Center on the Future, Clemson University.

This time period has been one of relative prosperity with rapid development at the periphery of the state's larger metropolitan areas and coastal resort/tourism centers. To put these figures in perspective, Figure 1 depicts both land conversion and population growth over the 1992-97 time period. While the land conversion rate was 30.2 percent, the state's population grew by 5.3 percent over this same time period. Put another way, land was converted at six times the rate of population growth.

**Figure 1: South Carolina: Population Growth and Increase in Developed Land 1992-97**



Source: USDA, US Census Bureau and Jim Self Center on the Future, Clemson University.

What are we to make of these numbers? The state of South Carolina is growing rapidly and will continue to do so in the foreseeable future. The alarming fact is that much of this growth is occurring as urban sprawl. Other parts of the country have experienced urban sprawl, and in the past we have felt some comfort in the fact that we weren't there yet. The numbers above suggest that we are in fact there with among the highest rates of rural to urban land conversion in the country.

It is time that we start to seriously address this issue. The Legislative Smart Growth initiative is a start, but we need to move more quickly than we may have suspected. The recent development that South Carolina has experienced has brought unprecedented opportunity, but the high rates of land conversion are irrevocably changing the character of this state. The rates of agricultural prime land, woodlands, and wildlife habitat conversion now rank among the highest rates in the country.

At the same time, the infrastructure costs of servicing this low density development pattern will be staggering. The Rutgers University study that placed infrastructure costs in South Carolina at \$57 billion over the next 20 years may actually be a conservative estimate. How are we to pay this price tag? The answer is smart growth. It's the fiscally responsible thing to do, and we're doing the taxpayers of South Carolina a disservice not to move forward.

## **Research Methods**

The Natural Resource Inventory (NRI) report land classification system defines two primary land cover types: federal land and non-federal land. Non-Federal land has been further classified as rural or developed land. For the purpose of this paper, the change in rural and developed lands have been examined.

The data collected in the NRI report was primarily gleaned from aerial photographs as well as a variety of ancillary materials including extensive use of USDA field office records, information provided by local Natural Resource Conservation Service field personnel, and technical guides developed by local field office staff.

Census data came from report number ST-99-7, State Population Estimates Annual Time Series, April 1, 1990 to July 1, 1999.

## **Definitions**

**Developed Land:** A combination of land cover/use categories including urban and built-up areas, small tracts of built-up land less than 10 acres in size, and rural transportation land.

**Rural Land:** Typically rural land cover/use categories including agricultural lands, pasture lands, and natural areas.