



Principle 1: Conserve Natural and Scenic Assets

What's Good or Getting Better

Natural resources are tremendously important to the VCC region, as the basis for farming and forestry, for tourism and recreation, and for quality of life. Successful communities identify the areas that are most important in terms of natural and scenic resources and develop policies to protect these features. The linchpin of protecting natural areas is to protect working landscapes: the farms and forests that enhance scenic views, protect natural habitat, and contribute to the economic vitality of our communities. In addition, riparian areas and special habitats merit protection, because these areas have the greatest environmental impact.

What's Good or Getting Better

- The Valley is renowned for its natural and scenic bounty.
- The Valley dominates state agriculture, containing four of the top five counties in agricultural receipts.
- The value of farm products rose 65%, from \$505,087,000 to \$833,676,000 between 1987 and 1997.
- The Valley region is important for the state's hardwood production.
- The value of timber harvests has risen many-fold in the last 15 years and reached \$18.4 million in 2000.
- Almost all counties have a goal of preserving agricultural land.
- Farmers in 7 counties and 1 city have formed agricultural districts.
- As of June 2002, there were 45 'ag' districts in the region, covering 117,407 acres.
- Conservation easements have seen phenomenal growth, increasing nearly tenfold from 16 examples in 1990 to 152 examples in 2002.
- By the end of 2002, conservation easements covered more than 29,872 acres in the region.
- All 11 counties now have examples of conservation easements, compared to just 4 in 1990.
- Virginia ranks in the top 10 in the nation in globally rare plants and animals; the VCC region contains 33.7% of the natural heritage elements tracked statewide.
- Augusta County ranks #1 in the state for number of natural heritage sites.
- As the headwaters of two major river systems, the region has control over the water quality of its streams.
- Valley landowners have established nearly 300 miles of riparian buffers.
- A total of 33 riparian easements have been established in the region.

In This Chapter

- *Farming and Forestry Facts*
- *County Maps and Information Sheets*
- *Sector Trends*
- *Agricultural Preservation Efforts*
- *Rural Development Potential by County*
- *Riparian Areas and Natural Heritage Resources.*

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Causes for Concern



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- Farms are being converted to other uses. The 1997 Agricultural Census showed a loss over the previous decade of 80 Valley farms and nearly 50,000 acres.
- This loss of farmland is concentrated not just in the high-growth counties, but in the state's top agricultural counties. Nearly 68% of the acres lost were in the top-ranked counties of Rockingham (#1), Augusta (#2), and Shenandoah (#5).
- The Valley region lost an estimated 16,500 acres of forest land between 1992 and 2002, ending a 75-year increase in forest land.
- The forest land base (land potentially available for timber production) is declining. One study estimates that only 54% of the region's forested land will likely remain available for timber production.
- Some agricultural sectors are in decline or under stress, especially sheep, dairy and apple.
- Apple growing, historically strong across the Valley, is in trouble. The number of acres in apple trees declined from 73,044 acres in 1949 to 18,589 in 1997.
- The number of sheep and sheep farms has declined drastically in the last 15 years.
- The poultry industry, the region's powerhouse, has suffered serious setbacks.
- Specific programs addressing farmland preservation are practically nonexistent in the region.
- No counties address issues of maintaining a productive forest base.
- Most counties generally rely solely on zoning policies, which is not sufficient to protect farmland.
- Many streams in the region are polluted. Most of the main watercourses in the VCC service region rank high priority for nonpoint source pollution and the region is worst in the state for percentage of streams having little or no riparian buffer.
- 39% of the impaired (polluted) stream miles in the state are in the VCC region.
- Pleasant Run in Rockingham County was listed as the most inadequately buffered watershed in the entire multi-state Chesapeake Bay region.
- Augusta County, which has the highest number of natural heritage sites in the state, also is one of the fastest-growing counties in the region, with a growth rate exceeding the state average.



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Importance of Farming and Forestry

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If any region should appreciate its farming and forestry assets, it is the Shenandoah Valley. The region reigns as the state's agricultural powerhouse, while its extensive hardwood forests provide timber products, jobs, and a strong base for recreation and tourism.

Economic Value: The direct economic impacts of this "working landscape" are significant. Nearly 15 percent of jobs in Virginia and almost 12 percent of economic output can be attributed to agriculture. The VCC region contains four of Virginia's top five agricultural counties (see Figure 1-1). With agricultural receipts of \$833,676,000 in the latest census, the region accounts for 36 percent of state agricultural receipts (see Figure 1-2).

Statewide, forest products rank first in market value of crops and the industry accounts for 1 in 6 manufacturing jobs. Forest harvests in the region brought in \$18.4 million in receipts in 2000. Forestry drives the economies of many rural and mountainous VCC communities that have limited economic opportunities.

These forestlands also make immense but largely unmeasured contributions to the environment, particularly cleaner air and water. Culturally, farms and forests are what residents identify with and what draw visitors who come for history, scenic beauty, and recreation.

Value of Environmental Benefits: Virginia's forests provide tremendous

benefits filtering out pollutants. The Virginia Department of Forestry estimates that forests provide over \$900 million of air pollution abatement each year, based on conservative estimates of what it would cost to remove the same quantities of five major pollutants through alternative means.

Value from Tourism, Recreation, and Wildlife: Backpacking, hiking, camping, forest viewing, and other forest-related recreation generated \$1.34 billion in spending by visitors, according to the Virginia Tourism Corporation's 1997/98 Visitor Survey. Millions more were spent by Virginia residents and visitors traveling less than 100 miles. In addition, the 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation calculated that \$1.68 billion was spent on wildlife-related activities associated with the forests of Virginia. History also draws tourists. Many sites, like the Shenandoah Valley Battlefields, rely on an agrarian landscape.

Top Ag Products in the Region

*Poultry
Cattle
Dairy
Sheep
Hay*

Figure 1-1.
Virginia's Leading Agricultural Counties

Rank	County	Gross Receipts	Percent of State Total
1	Rockingham	\$438,100,000	18.7%
2	Augusta	138,700,000	5.9
3	Page	115,200,000	4.9
4	Accomack	84,800,000	3.6
5	Shenandoah	73,000,000	3.1
VCC Region		833,676,000	35.6
Virginia		\$2,343,000,000	100%

Source: Agricultural Census

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Importance of Farming and Forestry



Quick Facts: Agriculture

In 1997, the date of the last Agricultural Census, the Valley region had 7,250 farms and 1.26 million acres in farming (see Figure 1-3). These figures represent a loss since 1987 of 80 farms and nearly 50,000 acres* (49,922 acres, or 3.4%). During this 10-year period, the value of farm products rose 65%, from \$505,087,000 to \$833,676,000. Livestock and poultry made up 93% of that value.

These figures demonstrate the high economic importance of farming in the Valley region and also indicate some intensification of operations.

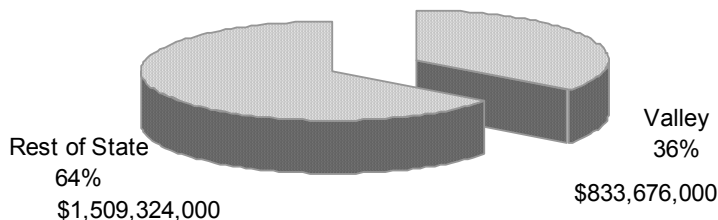
National Importance of Valley Agriculture

Rockingham County is number 1 in the region, in the state, and in the U.S. in turkey production. Augusta County is ranked 6th in the nation in turkey production. Frederick County is ranked 18th in the nation in apple production.

Nearly 50% of the farmland lost was in the counties of Rockingham and Shenandoah. More than two-thirds of the farmland loss was in just three counties (Augusta, Rockingham and Shenandoah). These are three of the top five agricultural counties in the state.

Figure 1-2.

Valley Region Leads Virginia Agriculture



Source: 1997 Agricultural Census, Value of Agricultural Products

Livestock and poultry made up 93% of regional agricultural receipts in 1997.

Figure 1-3.

Selected VCC Region Farm Indicators

	Farms	Acres Farmed	Avg. Farm Acres	Market Value Ag Products
1987	7,250	1,313,154	179	\$505,087,000
1997	7,330	1,263,232	174	\$833,676,000
Change	(80)	(49,222)	(5)	up 65.1%

Source: Agricultural Census

*The loss of farms and farmland may be higher than indicated by the Census. Many new farms qualified by virtue of a change in the data gathering in 1997 to more aggressively qualify farms and the effect of inflation (the long-standing minimum of \$1,000 in agricultural product receipts is easily met, for example, by hobby farms, such as running several horses, or those receiving conservation reserve payments). Because the Census shows a single net figure, an influx of part-time "farms" can mask, to an unknown degree, a loss of full-time or more actively managed farms. (See "Understanding the Ag Census" in the Appendix for more explanation.) Land cover data (described in Chapter 2), also show a greater decrease in farmland (103,400 acres between 1982 and 1997).



Principle 1: Conserve Natural and Scenic Assets Importance of Farming and Forestry

Quick Facts: Forestry

Both the volume and value of timber harvests in the VCC region rose between 1986 and 2000. The VCC region is predominantly hardwood and this is reflected in timber harvests. In 2000, 93.5% of harvest value was for hardwood, up from 81.7% in 1986. Pine, however, is the dominant wood product for the state.

Rockbridge County, with \$4,768,665 in forest harvest receipts in 2002, was the top forestry county in the region. It ranked 21st in the state overall, but was 3rd in hardwood receipts. Alleghany County (\$2,455,358), Botetourt County (\$2,201,892), and Highland County (\$2,067,195) also are strong forestry counties. The lowest volumes were in the northern Valley. These statistics show that those upland counties that may not be as fertile and productive for farming can be quite productive for growing timber.

Trends: Every county in the region experienced an increase in both volume and value of forest harvests in the 15-year period between 1986 and 2000. Total volume increased, particularly in sawtimber, but not by nearly as much as the dollar value, which rose an astounding 425 percent (not adjusted for inflation) to nearly \$18.4 million.

National Forests: An estimated 25 percent of the forestland in the region

is contained in national forests. Harvests from the George Washington and Thomas Jefferson National Forests have declined precipitously (by 76.2% between 1998 and 2002) and likely will remain at low levels.

New Decline in Forest Area: After 75 years of forest area increase in Virginia, forest area is now declining statewide. Compared to previous centuries, when forest land was lost through clearing for agriculture (1700s and 1800s) and then railroad logging (early 1900s) in the mountains, urbanization is now the main converter of forest land in Virginia. For the VCC region, preliminary Forest Inventory data indicate forest loss of 16,500 acres between 1992 and 2002. See the related discussion in Chapter 2 on changes in land cover.

Top Forestry Counties in the VCC Region (2002)

*Rockbridge County
Alleghany County
Botetourt County
Highland County*

The County Information Sheets that follow give more agricultural and forestry statistics. See also Sector Trends (starting on p. 28).