

ORANGE COUNTY, VIRGINIA 2013 COMPREHENSIVE PLAN



Approved by the Board of Supervisors on December 17th, 2013
Amended on July 14th, 2015 and on October 27th, 2015

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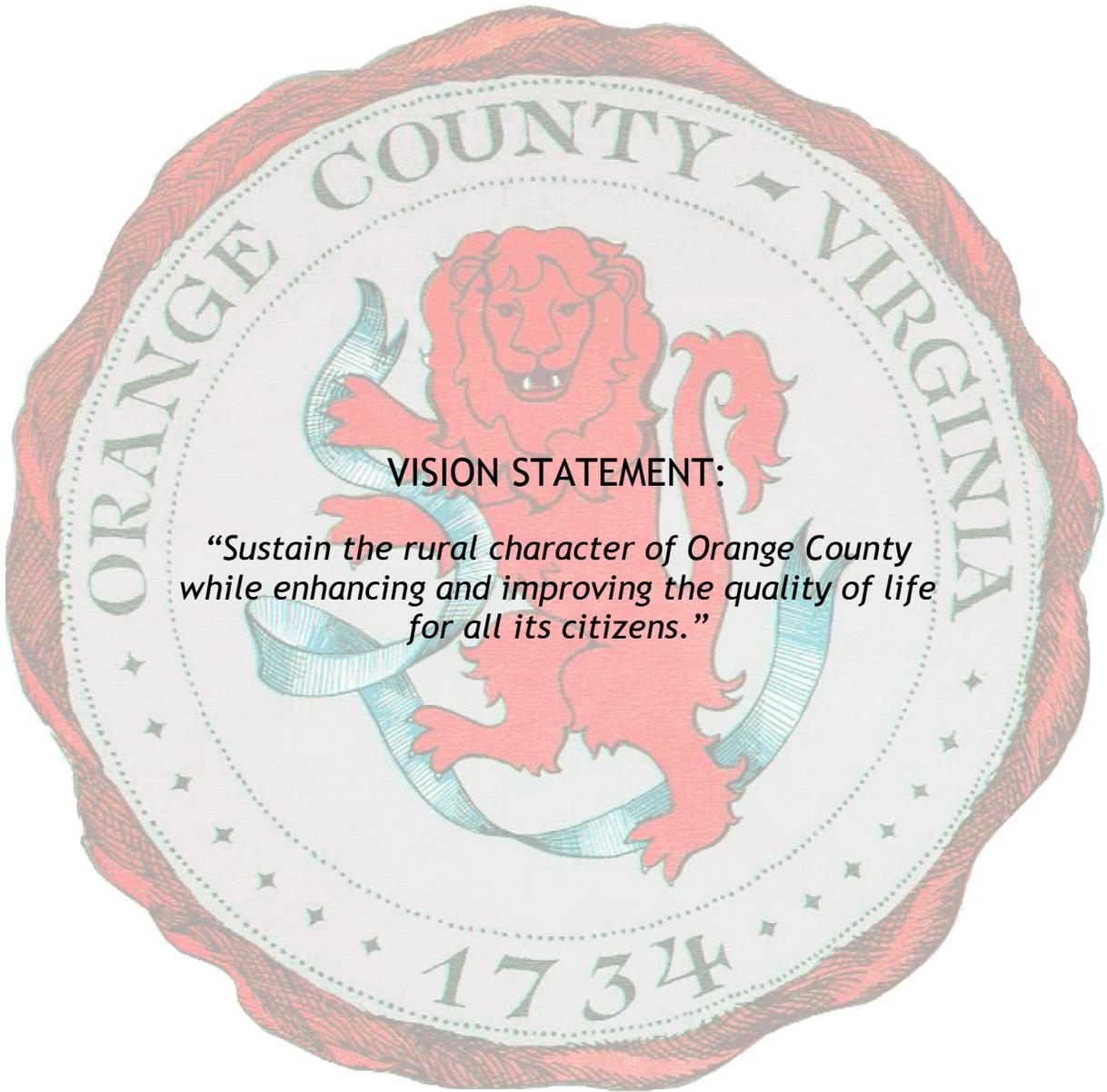
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VISION STATEMENT:

“Sustain the rural character of Orange County while enhancing and improving the quality of life for all its citizens.”



ACKNOWLEDGEMENTS

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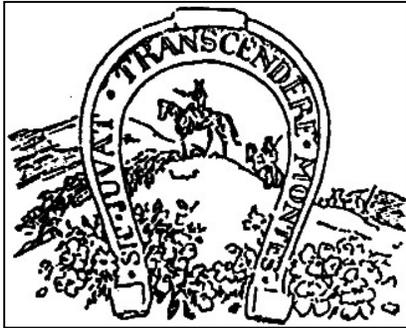
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A VERY BRIEF HISTORY OF ORANGE COUNTY, VIRGINIA

Illustrations and history provided by Frank Walker, local historian

Established in 1734, Orange County is named in honor of William, Prince of Orange, who in that year married Anne, Princess Royal of England. It has the distinction of having been the largest Virginia county ever formed. Orange covered a vast territory extending from its present eastern boundary west to the Mississippi River and north to the Great Lakes. The states of Ohio, Illinois, Indiana, Kentucky, and West Virginia, plus the southern parts of Michigan and Wisconsin and the western end of Pennsylvania were at one time all part of Orange County.

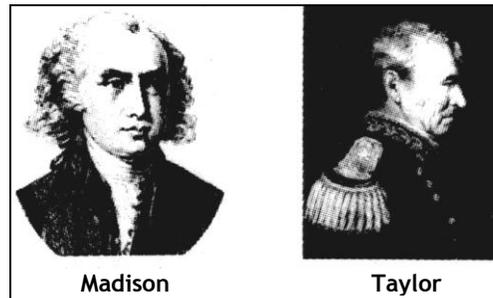


In 1710 Lieutenant Governor Alexander Spotswood arrived to take charge of the Virginia colony. In 1714, he settled a group of Germans at the edge of the Rapidan River in what is now eastern Orange County. He named the settlement "Germanna," combining the identity of its inhabitants with the name of England's Queen Anne. In 1716, Spotswood led an expedition from Germanna west over the Blue Ridge Mountains, a venture that re-ignited the westward expansion of British America, ultimately to the Pacific. The people who accompanied Spotswood were dubbed by him "Knights of the Golden Horseshoe,"

many of whom figured prominently in later Virginia history.

A wide variety of mineral deposits were discovered in the county, including iron ore, which Spotswood mined and smelted. That iron contributed significantly to the American Industrial Revolution. The clear-cutting of timber to feed the furnaces led to the regrowth of a temperate-zone jungle called the Wilderness. A visiting William Byrd II was impressed both by the iron operations and by Spotswood's grand home, which he dubbed the "Enchanted Castle," the name by which its ruins are known today. In the 1820s, gold was discovered and mined commercially, with one mine continuing to operate until 1937.

In 1722, England's King George I awarded a patent of 8,500 acres to Col. James Taylor II, a former Knight of the Golden Horseshoe. Much of today's Town of Orange lies within that tract. Taylor then built his home, "Bloomsbury." The Bloomsbury house, privately owned, still stands. Two of Taylor's great-grandsons became Presidents of the United States: Zachary Taylor and James Madison, the "Father of the Constitution." Madison was instrumental in the drafting and ratification of the U.S. Constitution and in the drafting and adoption of its Bill of Rights amendments. His lifelong home "Montpelier" stands near the town of Orange and is now a National Trust property, open to the public.



The most significant actions of the American Revolution that took place in Orange County were a British cavalry raid that terrorized the present-day Antioch Church area for several days, and the Marquis de Lafayette's marches through the county in 1781. One road Lafayette took is called the "Marquis Road." During his 1824-25 return to America, Lafayette visited Orange County several times.



While the War of 1812 had little effect on the county, the American Civil War was an altogether different matter. Orange County and the surrounding area was the stage for many engagements and events, including a cavalry battle fought in the streets of the Town of Orange in 1862. Early on, the Confederate army began to develop a defensive line along Orange County's Rapidan River boundary in order to protect both a major hospital facility at Gordonsville and the county's strategic transportation network.



In November 1863, Union General George Meade and his Army of the Potomac crossed the Rapidan into eastern Orange County during the Mine Run Campaign. Confederate General Robert E. Lee's Army of Northern Virginia blocked the threat, and Lee and his army then spent the winter of 1863-64 quartered in Orange County behind the Rapidan defensive line. The following May, the Union army, now accompanied by General U. S. Grant, again crossed the Rapidan into the Wilderness of

eastern Orange County and into what became one of the war's bloodiest battles. The Battle of the Wilderness was a tactical draw, but Grant employed his superior resources to continue attacking out of Orange County towards Richmond and, ultimately, to Appomattox.

With Orange County in the "Tobacco Belt," slavery remained an important labor system right up to the Civil War. Even so, the "peculiar institution" characteristically involved only a few slaves per owner, with slave owners being a minority of the county's population. Following the Civil War, many freed slaves remained in the county. Initially, many lived in "freedman's villages," and a few of those settlements survive to this day. Some former slaves became tenant farmers, others acquired their own land to farm or worked at various trades. The Gilmore Freedman's Farm at Montpelier was the first such farmstead in the Nation to be restored and opened to the public.

The arrival of the Louisa Railroad at Gordonsville in 1840 had transformed that town into a transportation and commercial center. The subsequent arrival of the Orange & Alexandria Railroad in 1854 quickened the pace of that development, and Gordonsville dominated the regional economy until the early 1900s.

During World War II, Andrew Maples of Orange County became a Tuskegee Airman, one of the war's famous African-American fighter pilots, and over 40 of the county's young men landed on Normandy's Omaha Beach on D-Day 1944. During that time, Orange's farms, factories, shops and stores were busier than they had ever been before - or since. The county leaders are now adding tourism to their economic development planning, and a viable local economy is emerging.

Orange County's current contributions to our now large and populous Nation are comparatively more modest than those of its earlier days. Its heritage, its historic sites and venues, and its scenic beauty continue to make it interesting and attractive to present-day residents and visitors alike.





I. Introduction: Why a Comprehensive Plan?

In 1975, the Virginia General Assembly passed legislation requiring that each County create a planning commission, enact a subdivision ordinance and adopt a comprehensive plan. The law also stipulated that the planning commission must review the comprehensive plan at least once every five years.

A. Statutory Authority

Sec. 15.2-2223 of the Code of Virginia states (in part):

"In the preparation of a comprehensive plan the commission shall make careful and comprehensive surveys and studies of the existing conditions and trends of growth, and of the probable future requirements of its territory and its inhabitants. The comprehensive plan shall be made with the purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the territory which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity, and general welfare of the inhabitants." (Code of Virginia § 15.2-2223)

Orange County began work on its initial comprehensive plan in May 1974, and it was adopted by the Board of Supervisors in June 1977. Subsequent revisions of the plan occurred in 1984, 1990, 1999, 2006, and 2009.

B. Purpose of the Plan

As a policy document, it is to be used to communicate the preferred use of land in designated areas for achieving the vision of the County within the



land use context. It is a tool that can be used by the County's elected officials, staff, and citizens to evaluate various land use options and development proposals for compatibility, suitability, as well as sustainability.

This Plan uses the most current information available to define and document the existing land uses within the County, and their general locations. A key objective of this Plan update was to incorporate new information, from sources such as the 2010 U.S. Census and numerous recent studies and reports, to create an accurate picture of the County as it is today, and to use this information as the baseline for planning over the next 5 to 20 years (or 50 years for the Germanna-Wilderness Area (GWA)). The Plan describes the major priorities related to future land use that contribute to achieving our vision. Priorities such as protecting historical areas and natural resources, preserving our farm lands, supporting private enterprise which will expand our local economy to create jobs and revenues, retaining the character of our communities and meeting the requirements for public facilities.

C. Utilizing this Plan

Section II of this Plan briefly describes the County's existing land uses. Using the most current information available, such as U.S. Census data, state data sources, and local land records, a picture of the broad diversity of land uses throughout the County emerges. By documenting these current conditions, the County can form a useful baseline for future planning.

The next section of this Plan outlines the key goals and strategies that give focus to the planning process. Section IV, "Future Land Use," describes a set of preferred land use categories and the general locations/areas for each. This section also highlights any expected changes from current uses and, most importantly, identifies areas where changes are not planned or generally supported. In addition to being a tool to aid in judging land use proposals, this section serves to communicate the expectations and preferences of the County to all stakeholders involved in the land use process in Orange County.

The section related to public facilities describes the location of the various components of existing public resources and facilities. The Capital Improvements Plan (CIP) section gives a summary of how budgeting and planning for capital projects is impacted by the Comprehensive Plan. The last part of the body of the plan is a technical supplement that provides additional detail about the County, its people and its economy.

The Germanna-Wilderness Area Plan (see Appendix B) is intended for use as a stand-alone planning document, but still within the larger context of the goals and objectives of the Comprehensive Plan.



D. The Vision for Orange County

The vision for the County, as adopted by the Board of Supervisors on October 19, 2010, is to:

Sustain the rural character of Orange County while enhancing and improving the quality of life for all its citizens.

Underlying this vision are several principles that are used to guide in the planning of the County's future. Principles such as these directly impact the decisions and priorities described in the future land use section. The underlying principles of this vision are that:

1. We wish to retain the characteristics that give identity to the mix of communities that exist within the County.
2. We understand that a vibrant economy contributes to the sustainability of our community and our quality of life.
3. Wise resource planning and land use decisions directly impact our ability to attract and support a business base, while maintaining the rural nature of the County.



Business Fronts in Historic Orange

II. Existing Land Uses

A. Overview

The land area of Orange County is 341 square miles, or 218,240 acres. According to the U.S. Census Bureau's 2010 data, Orange County's population was 33,481 residents, resulting in an average density of 98 persons per square mile.

Chart II-I below illustrates parcel distribution data based on parcel information containing acreage data obtained from the Commissioner of



Revenue's tax records. The Parcel Distribution Map found in the Appendix illustrates the parcel and acreage distribution throughout the County.

CHART II-I: PARCEL AND ACREAGE DISTRIBUTION TABLE				
Acreage Range	% of Parcel Total	Parcels	Acreage	% of Acreage Total
.0256-.999	21.05	2,926	1,068.24	0.50
1-5.998	50.02	6,954	19,293.62	9.11
6-19.93	14.77	2,053	21,651.20	10.23
20-49.975	7.48	1,040	31,727.84	14.99
50 +	6.69	930	137,956.70	65.17
TOTAL	100	13,903	211,697.60	100

2013 Parcel data from the Orange County Commissioner of Revenue.

B. Forest and Woodlands

More acres in Orange County are forested than any other single feature. A 2007 report by the Virginia Department of Forestry (*2002-2007 8th Forest Inventory of Virginia, 2007; Table 2. Area of timberland by County and ownership class (acres)*) found that 137,190 acres (62.9% of the total) are in public and private forests. Of that acreage, approximately 4% (5,600 acres) are public forests, and the remaining 96% (131,400 acres) are privately owned. Tax records indicate that 47,020 acres of these forests are in land use taxation.

C. Agricultural

Approximately 66,028 acres in the County are enrolled in the agricultural land use taxation program; the 2007 Census of Agriculture County Profile indicates that nearly 34,000 acres are used for harvested cropland.

D. Residential

The Population Density map (please see Appendix) shows the 2010 U.S. Census population data by the County census block location. As can be seen, concentrations of residential land are located near the towns of Orange and Gordonsville as well as on the Rt. 3 corridor. A significant number of individual homes also exist throughout the County in the 200+ named subdivisions around communities like Barboursville, Rhoadesville, Unionville and Mine Run, typically adjacent to primary or secondary roads.

E. Public and Private Easements

Although not a separate land use category that can be added to the above totals, approximately 15% (32,900 acres) of the County land area has been placed in historic (3,900 acres) or conservation (29,000 acres) easements.



III. Goals, Objectives and Strategies for Plan Implementation

Vision Statement:
Sustain the rural character of Orange County while enhancing and improving the quality of life for all its citizens.

As presented in this Plan's introduction, the vision for Orange County emphasizes two primary planning objectives. The first is to develop plans and policies that work to retain the rural areas of the County, while the second objective is to develop plans and policies that lead to improvements in the quality of life for all citizens, which includes promoting beneficial economic growth and development.

Turning this vision into reality requires an understanding of where Orange County is today, and the issues that face the County in the future. Based on that analysis, realistic and attainable goals must be established to move us toward achievement of that vision. The County's four main policy goals for the next 5 to 20 years, as well as implementation strategies, are found below.

Goal 1: Promote and preserve our unique historic and environmental resources.

Objective A: Promote preservation of significant historical areas, sites, and buildings.

Strategies for Implementation:

- Consider the potential impact of land use decisions on significant historic resources, particularly those listed on the National Register, or that are of regional significance.
- Promote the development of historic and environmental overlays.
- Require utility lines to be located underground for new development in historically significant areas.
- Consider transfer of development rights and conservation easements where appropriate.





James Madison's Montpelier

Objective B: Sustain and enhance agricultural and forestal uses.

Strategies for Implementation:

- Develop plans to protect the County's prime, class I & II, farm lands such as those with Davidson and Rabun-Davidson soils.
- Maintain the agricultural, forestal, and open space land use taxation programs.
- Support the Cooperative Extension Service and the Virginia Tech Agricultural Experiment Station in their efforts to promote alternative crop production and sustainable agricultural techniques.
- The rural areas of the County should remain agricultural and forestal in character and density. Development of rural areas should preserve agricultural areas for agricultural use, as well as other accessory and residential uses in conjunction with agriculture activities.
- Permit and encourage agricultural and forested uses, outdoor recreational uses, uses based on cultural, natural or historic resources or open spaces, and accessory uses in direct support of these uses.

Objective C: Develop plans to protect the quality and supply of surface water and groundwater and other valuable environmental resources.

Strategies for Implementation:

- Promote the use of low impact design techniques in new development.
- Promote Best Management Practices in all land uses to minimize surface and groundwater pollution.
- Promote groundwater protection measures (e.g. Everona Limestone Spur) through educational partnerships with regional and state agencies and commissions, such as the Culpeper Soil and



Water Conservation District, the Rappahannock-Rapidan Regional Commission, and the Department of Conservation and Recreation.

- Work with Rappahannock Rapidan Regional Commission and other agencies to implement Total Maximum Daily Load (TMDL) plans for improving water quality within the County.
- Implement the recommendations contained in the 2006 Water Supply Study to address short, medium, and long-range solutions for our potable water needs.
- Require both above-and below-ground storage tanks to have containment measures that prevent contamination of surface and groundwater due to leaks and spills.
- Consider developing and implementing resource protection overlays as and where needed.

Goal 2: Ensure the county is a competitive location for economic development opportunities.

Objective A: Provide adequate adult training resources to ensure a marketable and sustainable local labor force.

Strategies for Implementation:

- Collaborate and coordinate with regional institutions of higher learning, Orange County schools, and businesses to expand Career and Technical Education (CTE) programs to meet the needs of existing and prospective local business and industry.
- Encourage the development of a work force entry program with the middle and high schools.

Objective B: Utilize the recommendations contained in the Existing and Target Industry Analysis (TJPED, 2012) and target the following industries based on the screening criteria contained in the report:

- Agribusiness.
- Business and Financial Services.
- Transportation and Logistics.
- Health Services.
- Light Manufacturing.

Objective C: Evaluate the County's overall approach to retaining and attracting business and industry.

Strategies for Implementation:

- Continue implementation of the Economic Development Business Retention and Expansion Program (BRE) as part of the County's Economic Development Existing Industry Plan.



- Utilize resources available through the Central Virginia Partnership for Economic Development, the Virginia Partnership for Economic Development, and the Rappahannock Rapidan Regional Commission to enhance economic development opportunities.
- Update the Zoning Ordinance, as well as other relevant ordinances, to communicate the type and scale of businesses preferred and promote timely processing of applications.
- Encourage agricultural, commercial and industrial enterprises that are compatible with Orange County’s unique features.
- Evaluate a range of alternatives (such as a Community Development Authority (CDA); Special Taxing Districts; or the Virginia Resource Authority) for improving infrastructure capabilities as and where needed.



MPS Warehouse

Objective D: *Assure that sufficient land, in desirable locations, is designated for economic development uses.*

Strategies for Implementation:

- Develop “small area” plans for the designated Economic Development areas to determine whether lands within the areas are of adequate size, properly zoned, and have access to needed infrastructure and transportation systems.
- Encourage the development of technological and public infrastructure planning and implementation necessary for economic development efforts.
- Incorporate components of the preferred development plan recommended by the Wilderness Battlefield Gateway Study (November, 2012) into a more detailed Rt. 3 Corridor Development Plan (see Appendix B).
- Consider the creation of Technology Zones to facilitate the start-up and growth of technology business ventures within the County.



Objective E: *Promote tourism as a viable component of the County's economy.*

Strategies for Implementation:

- Update the plan for marketing tourism as an industry in the County and through strengthened alliances with the towns of Gordonsville and Orange.
- Develop a media strategy to market the rural characteristics and historic resources of Orange County to promote our agricultural and heritage tourism industries.
- Develop plans to celebrate major historic milestones such as the Battle of Wilderness Sesquicentennial and the Germanna Colony Tricentennial.
- Encourage start-up businesses which capitalize on the County's history, culture, and the unique talents of citizens.
- Preserve historic and agricultural resources with adequate buffers from incompatible commercial, residential and industrial activities.
- Encourage and support improvements that enhance the assets of Orange County as a visitor destination.
- Encourage the protection of transportation corridors to assure pleasing and aesthetic views to visitors.
- Promote and expand farm-related recreational activities as well as farm enterprise and farmer's market opportunities.
- Support and promote the equestrian industry.

Objective F: *Promote health services as a viable component of the County's economy.*

Strategies for Implementation:

- Target specific medical and wellness service industries to locate in Orange County.
- Identify partnering opportunities between regional medical facilities, regional post-secondary educational facilities and potential local businesses for health services.
- Promote economic partnerships between various medical and wellness businesses such as testing laboratories, therapy clinics, doctor/dentist offices, and other health providers.



Objective G: *Develop and implement a comprehensive telecommunications strategic initiative that ensures the community's current and future broadband and fiber optic needs are met.*

Strategies for Implementation:

- Work with internet service providers to expand the existing fiber optic network to serve our economic development needs.
- Work with public and private interests to provide County-wide internet connectivity solutions for residential and business users to reduce reliance on dial-up internet connections and serve areas without internet service.

Goal 3: Provide for adequate public services and facilities to serve the needs of County citizens.

Objective A: *Promote effective and efficient government.*

Strategies for Implementation:

- Evaluate public facility and space needs of all County agencies through implementation and routine updates of the Capital Improvements Plan.
- Develop and fund an operations and maintenance plan for each County facility.
- Communicate with citizens about services and opportunities available to them through their County government.



Germanna Community College, Locust Grove Campus



Objective B: *Ensure quality education for all County citizens.*

Strategies for Implementation:

- Work with the Orange County School Board to develop a long term strategic plan for continuous improvement of education in the County.
- In support of the County's vision of maintaining rural characteristics, the County will support agricultural education programs in schools.
- Maintain modern facilities to allow utilization and application of current technological developments in every classroom through the school facility planning in the Capital Improvements Plan.
- Plan for the growth of the student population by taking into account the projected capacity of the schools when reviewing development proposals.

Objective C: *Consider the health and human services needs of County citizens.*

Strategies for Implementation:

- When health service and facility needs of the County's citizens are identified, strive to develop a plan to meet those needs.
- Develop a plan that addresses the needs of the elderly, disadvantaged and disabled in terms of medical care, when feasible.
- Promote adequate health care and facilities.



Dogwood Village of Orange County



Objective D: Encourage affordable housing development.

Strategies for Implementation:

- Consider residential development to include a portion of low-to-moderate income dwellings.
- Participate, when feasible, in available housing rehabilitation and home ownership programs for protected populations.
- Encourage the provision of transitional housing for the elderly, disabled, and homeless, when feasible.

Objective E: Provide for public safety through adequate emergency services and law enforcement.

Strategies for Implementation:

- Identify long-range fire and rescue needs for the County in a 20 year window.
- Implement the Hazard Mitigation Plan.
- Strive to maintain a maximum fifteen minute emergency response time 80% of the time to all parts of the County.
- Identify the need for and locate public safety station locations to better serve the population centers of the County.
- Implement a County-wide GIS system capable of coordinating a wide range of users, from emergency management, law enforcement, E-911, planning and zoning, legal, building, health, and other County agencies providing public safety services.

Objective F: Ensure adequate infrastructure.

Strategies for Implementation:

- Develop level of service standards for public facilities and services, including airports, schools, water and sewer systems, libraries, parks and recreation, fire and rescue service, public health services, solid waste management, and transportation.
- Identify growth areas with adequate infrastructure to support and sustain major residential subdivisions, commercial, and industrial development.
- Coordinate efforts of private providers of public services (water, sewer, telephone, cable, electricity, cable television and solid waste management) with current and future public planning efforts.
- Promote the cooperative development of public facilities between the County and the towns of Orange and Gordonsville.
- Coordinate with private vendors, regional, state, and federal agencies to develop plans addressing the provision of adequate technological infrastructure to all County citizens, e.g. high-



- speed internet availability and whitespace.
- Seek funding to extend the sewer lines on Route 20 from the eastern corporate limits of the Town of Orange to the Route 20 and Porter Road area where poor soil conditions necessitate the extension of sanitary sewer service for the health, safety, and welfare of the County's citizens.

Objective G: *Serve the parks and recreation needs of County residents.*

Strategies for Implementation:

- Develop a comprehensive park system to serve the recreation needs of County residents.
- Develop a plan for enhancing the recreational value of and improving public access to the Rapidan River, including evaluating Scenic River designation.
- Incorporate the goals and needs identified by the Parks and Recreation Plan into land use decisions.
- Continue strengthening interagency partnership with Parks and Recreation and Planning.

Goal 4: Provide the citizens of Orange County with the safest and most efficient transportation system based on state, local and regional future land use and transportation plans.

Objective A: *Provide a safe and efficient transportation network for Orange County.*

Strategies for Implementation:

- Pursue improvements to the following major arterial roadways as necessary to ensure their safety and efficiency:
 - Route 20
 - Route 522
 - Route 3 and 20 intersection
- Continue to work with VDOT to create a service road system plan along Route 3 to create an interconnecting parkway to serve all developments.
- Ensure future developments incorporate on-site transportation improvements required by VDOT and Orange County.





Orange County Airport

Objective B: *Coordinate regional transportation needs with surrounding localities, including phased implementation of an intermodal transportation network, by coordinating planning efforts with the Towns of Orange and Gordonsville, as necessary.*

Strategies for Implementation:

- Partner with the towns of Gordonsville and Orange in pursuit of viable passenger rail service access in Orange County.
- In cooperation with the Rappahannock-Rapidan Regional Commission, Virginia Department of Transportation (VDOT), Virginia Department of Aviation (VDOA), and the Virginia Department of Rail and Public Transportation (VDRPT), and other public transportation-related agencies, identify transportation improvement projects that are compatible with the future land use policies contained in the following which are incorporated by reference into this plan:
 - 2013-2018 Virginia Department of Transportation Six Year Improvement Program
 - VTRANS 2035 (Commonwealth Transportation Board's multimodal long-range transportation plan)
 - Route 20 Corridor Study (Phases I and II)
 - 2011 Regional Long-Range Transportation Plan (RLRP)
 - Airport Plan
- Coordinate planning efforts with surrounding jurisdictions and VTRANS for potential trail connectivity through Orange County.
- Encourage the development of a privatized van service to meet the transportation needs of the elderly.
- Encourage the coordination, location, and development of various sites in the County to accommodate car-pooling.
- Encourage commuter and local passenger bus service through Orange County.



Objective C: *Encourage a system of non-motorized recreational trails throughout the County.*

Strategies for Implementation:

- Develop an Orange County Alternative Transportation Plan which identifies a multi-use trail (defined herein as pedestrian, bikeway, and other non-motorized modes of transportation) network providing connectivity with residential development, educational facilities, recreational uses, commercial and employment centers, and historic and cultural destinations. Proposed trail segments should accommodate equestrian users, including horse-drawn carriages.
- When feasible, all proposed trails should be designed to accommodate emergency medical service vehicles;
- Work with community and volunteer groups to identify potential trails in existing right-of-ways;
- When feasible, include multi-use trails or components thereof, in road improvement projects in accordance with the County’s Alternative Transportation Plan;
- Pursue grant funding opportunities for County multi-use trail projects, which would include planning, survey and engineering design, easement acquisition and construction;
- Coordinate with the Towns of Gordonsville and Orange to develop a multi-use trail (including equestrian and horse-drawn carriages when feasible) system connecting the towns, in addition to providing linkages, such as “hub points,” to cultural, recreational, commercial, and historical resources within any proposed trail corridor

IV. Land Use

The Land Use section of the Comprehensive Plan identifies current and future land uses with general language and a recommended land use map.

A. Introduction

This chapter presents the Land Use Plan for the next 5 to 20 years (the Germanna-Wilderness Area Plan (GWAP) was created as a 50-year vision) and is the primary land use element of the comprehensive plan. The Plan is based on existing patterns of land use, the priorities associated with the County Vision Statement and its related goals, and an analysis of the future needs of residents and an expanding economy. As directed by the County’s vision, the Land Use Plan is a balance between retaining the characteristics of the various communities and resources that exist in the County and identifying specific areas that can accommodate the facilities and infrastructure required to expand our economy. One purpose of this plan is to communicate to the array of stakeholders (including land owners, residents, elected officials, investors and developers) the preferred land uses and development patterns across the County.



To more accurately describe existing land uses and more clearly communicate future plans, the County’s land use categories were revised and refined in 2013. An analysis of the patterns of existing uses, based on information such as current land records, newly released census data, and various reports from state and regional agencies, resulted in a grouping of land uses into five (5) categories. A 6th category, the Germanna-Wilderness Area, was added in 2015 with the development of the GWAP. Chart IV-1 details the purpose and general characteristics of each land use category.

The Land Use Map (please see Appendix A and the maps contained within the GWAP in Appendix B) shows the general locations of these categories, illustrating existing development patterns for use in guiding future growth across the County. The maps, text, vision and goals collectively represent the Comprehensive Plan and the context and interpretation that will guide future land use decisions. In considering development proposals, the Planning Commission and Board of Supervisors should be guided, not bound, by these maps.

CHART IV-1: LAND USE MAP CATEGORIES

CATEGORY	PURPOSE	DEFINITION
Agricultural 1 (A1)	Protect the rural, agricultural, historic and conservation areas of the County by preserving open space, limiting population and allowing little or no development other than agricultural and forestal enterprises, farm markets, homesteads and larger estates.	Parcels of specific historic relevance; parcels in conservation or other public/private easements; parcels containing unique physical characteristics and highly dispersed residential land use;
Agricultural 2 (A2)	Protect the characteristics of those areas of the County that feature a mix of agricultural activities, residential neighborhoods and small scale commercial uses.	Pockets of residential development interspersed between large areas of farmland and along primary and secondary highways; Scattered community commercial uses such as auto repair shops, and established rural convenience stores; Public uses include airports, solid waste collection sites (including landfills), and fire and rescue stations.
Village (V)	Retain small village and community living and identity, with local services for convenience.	Concentration of residential development with adjacent areas of commercial services for residents and businesses near primary intersections.
Town-Suburban (T-S)	Allow mixed development in close proximity to town service and employment resources.	Areas adjacent to town boundaries. Moderately intensive residential and commercial development.
Economic Development (ED)	Moderately aggressive development to provide jobs, shopping, higher density residential and expand tax base.	Existing and potential areas identified for an expanded mix of economic activity (industrial, office, and commercial) and higher density residential uses.



Chart IV-1 continued

<p style="text-align: center;">Germannia-Wilderness Area (GWA)</p>	<p style="text-align: center;">Establish and perpetuate a cohesive vision and clear expectations to guide coordinated land use decisions in the county's primary development area.</p>	<p style="text-align: center;">The Germanna-Wilderness Area contains various elements of the county's other land use categories, further detailed in an area plan which integrates land use, infrastructure, economic development, historic/cultural resources and conservation considerations in order to facilitate a unified, functional and attractive development pattern.</p>
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Note: For more comprehensive detail regarding development standards, please refer to the Orange County Zoning and Subdivision Ordinances.

B. Land Use Map

The Land Use Map (please see Appendix A and the maps contained within the GWAP in Appendix B) illustrates the forward-looking guiding policies for future development, conservation and overall land use in the County, based on historical data, existing development patterns, as well as where future development should be focused.

Land Use categories were revised in 2013 with the revision of this Plan, and again in 2015 with adoption of the GWAP, and are based on thorough analysis of the existing land use development patterns and the evolving characteristics of the County. The land use categories are as follows: A1, A2, Village, Town-Suburban, Economic Development, and the Germanna-Wilderness Area.

Land use categories A1 and A2 closely resemble those in the previous Comprehensive Plan they replaced, Agricultural Conservation and Agricultural. Development policies within each remain much as before - A1 should remain largely protected from residential and commercial growth, development in A2 should be compatible with existing patterns. The remaining categories more accurately reflect current residential and commercial uses and point to those areas most suitable for future growth.

Although not specifically a land use designation, there is a significant institutional land use throughout the County and this Plan identifies public and private non-profit uses and property ownership including, but not limited to: Airports, schools, parks, fire and rescue stations, libraries, post offices, utility stations, landfills, solid waste collection sites, emergency operations centers, churches and other such uses typically associated with public facilities and services. Recommended uses are public and semi-public in nature.

Furthermore, the Zoning and Subdivision Ordinances should reflect the concepts of this Plan, including the management of residential and commercial uses, and will be the controlling sources for the future uses.



C. Future Land Use Policy Designations

Agricultural 1 (A1)

Land in this category generally includes historic sites, sensitive conservation areas, forests, open spaces and areas of prime farmland. These are areas of low impact uses and very low population densities.

The land in the area identified as A1 generally shares one or more of the following characteristics:

- Parcels of specific historic relevance.
- Parcels in conservation or other public/private easements.
- Parcels predominated by at least one of the following environmental constraints: Steep slopes, wetlands, or 100 year floodplain.
- Parcels containing soils considered by soil scientists as prime farmland.
- Highly dispersed residences, primarily large lot homesteads or estates.
- Scattered small scale commercial uses such as auto repair shops, and established rural convenience stores.
- Public service uses are generally limited to solid waste collection sites, and utilities such as electricity and telephone.

In the future, land in the A1 area should remain substantially unchanged from its current pattern of uses. As a general rule, development in the A1 areas will be discouraged as significant changes could alter the prevailing characteristics and therefore would be incompatible with the County's vision and the stated principles in this Plan.

Agricultural 2 (A2)

This land use category covers areas of the County that feature a mix of agricultural activities and single family residential neighborhoods. Large undeveloped tracts of land that are forested, in pasture or other agricultural uses interspersed with small neighborhoods define this category. Agricultural 2 preserves the rural character in this part of the County by protecting the predominant land use, agriculture, from conflicts with incompatible residential, commercial, or industrial uses.

The land in the area identified as A2 generally shares one or more of the following characteristics:

- Agricultural activity as permitted by the Zoning Ordinance.
- Scattered groupings of residences and subdivisions along primary highways, secondary roads, and areas that are easily accessible or in close proximity to such highways.
- Varied commercial uses located along primary and secondary highways



that support and provide convenience for County residents living in this area.

- Public uses such as airports, solid waste collection sites, and fire and rescue stations. Public water and sewer services are typically not available in these areas.

In the future, land in the A2 area is intended to promote the agricultural lifestyle and to protect the characteristics of both our small neighborhoods and farming communities. The plan for these areas is based on a modest increase in the number of similar or compatible mix of uses, adjacent to existing residential or commercial developments (i.e. "infilling"). In the future, care should be taken to ensure that development in the A2 area does not negatively impact the land located in the A1 areas of the County, nor nearby agricultural land uses in A2.

Village (V)

The Village land use category is intended to retain the small village and community living atmosphere and identity of longstanding hamlets in the County. The three designated villages are Barboursville, Unionville-Rhoadesville, and Locust Grove. Public water and sewer are not available.

The areas designated as such include:

- Concentration of residential development along with areas of open land.
- Adjacent areas of commercial services for the convenience of the residents and businesses near primary intersections.
- Public services and facilities such as fire and rescue stations, solid waste collection sites, public schools, and libraries.
- Development contiguous with existing development uses.

Town - Suburban (T/S)

The Town-Suburban land use category includes those areas adjacent to incorporated towns and Lake of the Woods. This category maintains and promotes the continuity of established development patterns of the incorporated towns and Lake of the Woods. Particular attention should be given to consider the impacts of one jurisdiction's land use decisions impact on another jurisdiction. Encouraging greater communication and coordinated planning efforts should ameliorate conflicting land uses.

Public water and sewer are available in most areas, and the predominant type of development is single family detached dwellings, although greater density or a non-residential use may be appropriate if consistent with the existing, adjacent uses. The properties should be served by public water and sewer. Other public facilities and uses may include fire and rescue stations, public schools, solid waste collection sites, libraries, and emergency operations centers.



Economic Development (ED)

This land use category has been identified in the County's Comprehensive Plans for many years to serve two main goals: 1) Create more jobs in the County; and 2) Create tax sources that are based on economic activity. Areas of the County that are designated for economic development (including commercial, mixed use, and industrial developments) are primarily for locating businesses that address these goals by providing employment, shopping and other activities for the residents of Orange County and increasing the business tax base while not changing the character of the majority of the County. Designation of an ED land use category does not mean that all of such area will be developed. The small area plan, as an extension of the Comprehensive Plan, will detail which areas will be developed and which areas will be preserved.

The areas of the County designated for economic development are west on Route 3 toward the Rapidan River, as well as the industrial park and other properties suitable for commercial or industrial use along Route 15 between the towns of Orange and Gordonsville, and along Route 20 near the airport.

An area plan, designed to identify each economic development planning area in detail, may be prepared to address the opportunities and needs specific to each corridor. In general these plans may include the following considerations:

- Projects may require approval of a Master Plan of sufficient design detail to describe the vision and effect of the development. The Master Plan will generally include the general layout of roads, uses and functions, utilities, and easements. The Plan may contain preliminary design details such as building uses/design, buffers and landscaping, lighting and signage requirements, setbacks, street alignments/functional classification and arrangement of open space.
- As a general rule, Economic Development proposals should not adversely affect the environment and shall be provided with substantial buffers or natural shielding from major thoroughfares to preserve the natural appearance of the County.
- Projects in the Economic Development area are best served by public water and sewer.
- Revisions to applicable sections of the Zoning Ordinance may be prepared to encourage the preferred Economic Development projects and specify the details of preferred designs and uses.
- A Capital Improvements Plan (CIP), for each Economic Development area, may be prepared to identify the existing infrastructure (water, sewer, solid waste, communications, energy, etc.), the anticipated improvements required by development, and the sources of funding for the required improvements.
- When feasible, encourage the clustering of industries and businesses with similar intensity for ease in delivery of services and to promote



efficient use of land.

- Economic Development projects that are designed for mixed use are encouraged. The intention of the mixed use development is to create sustainable development that allows for the ability to live, work and shop in one area. Specifically, mixed use development will consist of residential, employment, commercial and civic elements together creating a cohesive “town center” or village type community.
- Proposals for new economic development should minimize impacts on the cultural and historic resources of the County by incorporating design features that are compatible with the area. Development in the Rt.3 corridor should generally be compatible with the Gateway concepts that have been proposed for the entrance to the County.

The Phase II Wilderness Gateway Study (November, 2012) identified certain development features that served as part of the framework for the GWAP developed in 2015:

- A Rapidan Recreational Crescent to provide a recreational greenway along the Rapidan River extending west to Germanna.
- A Scenic Lake formed by Wilderness Run and Shotgun Hill Branch to serve as a future water supply source for the region, provide additional recreational and scenic amenities, and create land feature for locating a new village.
- A Mixed-use Village to serve as a destination for retail, lodging, dining, shopping, and other commercial activities; as well as residential units.
- A Business Campus adjacent to the village and other commercial development to support job-creation.
- Design guidance and landscape buffering for new development and redevelopment along Route 3. Revised land development regulations to encourage enhanced setbacks, landscaping and improved signage for future development.

Germanna-Wilderness Area (GWA)

The Germanna-Wilderness Area is designated as the easternmost portion of the county, from the natural drainage basins created by Russell Run and South Wilderness Run, and bound on the northern and eastern sides by the Rapidan River and on the southern side by the Spotsylvania County corporate line. While this area contains only 14,600 acres, or approximately 7% of the county’s total land area, it has consistently contained the highest population growth and rate of land development in the county. This has been, and continues to be, driven by its proximity to the Fredericksburg, Culpeper and Northern Virginia labor markets as well as the availability of public infrastructure and relative ease of transportation. Orange County has long considered this area to be its growth center, and in 2015 the Germanna-Wilderness Area Plan (GWAP) was developed to guide



and coordinate future private-sector development in the area along with the corresponding public-sector investment for infrastructure and services (see Appendix B for the complete area plan). As a designated growth area, the establishment of the GWA is to meet the intent of §15.2-2223.1 of the Code of Virginia.

Previously, the GWA contained portions of land designated as Agricultural A1, Agricultural A2, Town-Suburban and Economic Development. With adoption of the GWAP, the area is now its own future land use category, and the land use designations within the Area were further defined in greater detail. There are several overarching objectives to guide the development, conservation and general use of land within the GWA:

- Development will be coordinated with the availability of adequate public facilities so that the expansion of water/wastewater, transportation, telecommunications, electrical capacity and other related infrastructure occurs in timely conjunction with development proposals.
- Planned development proposals are preferred to those utilizing traditional zoning techniques.
- Conservation areas will be maintained along and adjacent to all extreme topography, wetlands, water features, and most-importantly along the Rapidan River.
- A focus will be maintained on quality development to fit with the economic development branding and marketing strategy for the area. Part of this objective will be achieved by maintaining higher standards for site and building layout and design, enforcing access management standards along Route 3, and promoting multi-modal connectivity.
- Historic and cultural assets and natural resources in the area will be protected, celebrated and endorsed as reinforcement of the quality of life within this area of the county.
- Economic development will be incentivized as a means of inducing business investment, improving the median personal/household income, and expanding the tax base, thereby providing for a more balanced and sustainable economy for the entire county.

Land use in the GWA will be considerably more intensive and coordinated, and in many areas more urban, than in the areas of the county outside of the GWA, and a greater focus will be placed on integrating design standards for all development. By formally designating a geographic area for growth and more intensive land development, the rural character of the majority of Orange County is more affirmatively sustained via an adopted policy framework that establishes where development will and will not be encouraged.





Lake Orange

V. Public Facilities

A. Introduction

The purpose of the Public Facilities Plan is to assess the current and future public service and facility needs and provide a general plan for addressing these needs in an efficient and cost effective manner.

The principle goals of the Comprehensive Plan regarding public facilities and utilities are to:

1. Provide emergency services and law enforcement facilities to protect citizens.
2. Provide facilities for a system of high quality educational opportunities.
3. Provide community facilities that meet the service needs in an efficient and cost effective manner.
4. Serve the recreation needs of the community.

It must be recognized that levels of service within different areas of the County will vary. By identifying where public schools, water and sewer lines, fire and rescue stations, and other improvements exist or could be constructed, the County can encourage development in appropriate areas. Coordination of County land use, transportation and public facilities development is critical in providing equitable, efficient, and cost effective government services for current and future County residents. The County Infrastructure map in the Appendix provides the general location of schools, fire and rescue station sites and locations of other public services, such as water and sewer systems.

An evaluation of existing public facilities and a determination of needs for future facilities should involve several related criteria:



1. Location must be considered in relation to various elements such as existing and future population distribution, zoning, major transportation arteries, topography and utilities.
2. Sites should be accessible to major transportation routes providing the best possible access to the greatest number of citizens expected to use the facility.
3. There are advantages to the grouping of related facilities within one complex or area to enhance operational economy.
4. The present state of repair for particular facilities needs to be considered.
5. New projects should be shown to be cost effective in technical design and/or justified by the public benefits outweighing the public costs.

B. Review of Public Uses

Pursuant to 15.2-2232 VA Code Ann, no public facility shall be constructed, established or authorized, unless or until the general location or approximate location, character, and extent thereof has been submitted to and approved by the Planning Commission as being in substantially in accord with the Comprehensive Plan. See Section XII for the process to be followed for approval of public facilities.

C. Public Education

Currently, there are nine schools located in Orange County. There are six elementary schools: Gordon-Barbour Elementary, Lightfoot Elementary, Locust Grove Primary, Locust Grove Elementary, Orange Elementary, and Unionville Elementary. The total number of students currently enrolled (as of September 2012) in these six schools is approximately 2,280.

There are two middle schools and one high school: Locust Grove and Prospect Heights Middle Schools and Orange County High School. The total number of students enrolled is approximately 1,193 in the middle schools and approximately 1,487 in the high school. These figures equate to (Year 2012) county-wide enrollment of approximately 4,960. This represents a 22% increase over the total enrollment figures of 4,065 from 2000-2001.

D. Public Safety

Emergency Communication

The Orange County Emergency Communications Center serves as the Public Safety Answering Point (PSAP) for Orange County twenty-four hours a day, seven days a week. The center operates a three channel VHF conventional PL steered radio system, and Computer Aided Dispatch system and Emergency Medical Dispatching program, a Master Street Addressing Guide system and an enhanced 911 system. Staff consists of employees that are professionally trained and constantly strive to protect and serve individuals



during emergency and non-emergency situations.

Emergency Management

The Orange County Office of Emergency Management is a combined department consisting of the Emergency Management Department and the County's Fire & EMS Department.

The Emergency Management Office is responsible for overall coordination of emergency services for Orange County. This includes coordinating local emergency planning, training, and exercise activities and overseeing maintenance of the local emergency operations plan.

Emergency Services within Orange County consists of a blend of volunteers and career personnel. During times of crisis, it is the public safety community that can make the difference between life and death. Orange County's system consists of five (5) volunteer fire departments and three (3) County and volunteer emergency medical services agencies. The County also relies heavily on three (3) law enforcement agencies.

Sheriff

The Orange County Sheriff's Office provides law enforcement services to County residents, including investigating crimes, pursuing offenders, and making arrests.

The Sheriff's Office also provides animal control services, security services in the courthouse, and serves summons for potential jurors and witnesses.

E. Parks and Recreation

The Parks & Recreation Department operates approximately 30 recreation programs throughout the County, including a wide range of athletic and non-athletic activities.

The Board of Supervisors has adopted a long term plan to provide a community park in each voting district. These parks will be developed with a combination of capital improvements funding and community support.

F. Community Infrastructure

1. Public Water Supply

The Rapidan River serves as the primary source of public water for the towns of Gordonsville and Orange and portions of central and eastern Orange County.

The Town of Orange water filtration plant has a capacity of 2.0 million gallons per day. The Town of Gordonsville obtains its water through the Rapidan Service Authority (RSA). RSA buys water from the Town of Orange Treatment Plant and feeds it along Route 15 to the Town of Gordonsville. RSA also supplies water to the Route 20/Route 629 area from a well on Route 625 near the Orange County Sheriff's Office. This



yields 30 gallons per minute.

In eastern Orange County, RSA's water treatment plant has a capacity of 1.6 million gallons/day, and is permitted to draw up to 3 million gallons per day from the Rapidan River. This serves the Route 3 corridor, including Lake of the Woods, Somerset Farms, and Wilderness Shores subdivisions.

2. Sewage Treatment

Orange County relies primarily on septic treatment systems for sewage waste disposal. Significant areas with wastewater treatment for public and private sewer delivery include both towns, Lake of the Woods and Route 15 between Gordonsville and Orange. Over 70% (10,306) of the housing units (14, 616) in the county (including both Towns) utilize septic systems, the remaining approximately 30% (4,310) are served by RSA and the Towns of Orange and Gordonsville.

The Town of Gordonsville is served by the Rapidan Service Authority which owns the Gordonsville Wastewater Treatment Plant located just outside of the town. The plant collects wastewater from the Town and has a capacity of 670,000 gallons per day.

The Town of Orange Wastewater treatment plant is located off of Spicers Mill Road approximately 1.2 miles northeast of the town limits near Route 633 and the confluence of Poplar and Laurel Runs. To comply with the Chesapeake Bay Preservation Act the Town of Orange Wastewater Treatment Plant was updated and expanded so that it could treat wastewater to the maximum extent possible using current technology. The new 3.0 million gallon per day plant was brought on-line in September 2010. The plant uses a Bardenpho system for biological nutrient removal, clarification to remove solids and ultra-violet to disinfect the water before being discharged.

In eastern Orange County, RSA owns a modern wastewater treatment plant with a capacity of 2.0 million gallons per day and serves the entire Route 3 corridor including Lake of the Woods, Wilderness Shores, Somerset, Germanna Heights and the Germanna Community College. The plant is located near the Wilderness Shores Subdivision on the Rapidan River.

VI. Transportation

The present economy and land use pattern is dependent upon the highway system that has evolved. For the future growth and development of the county to occur in an organized and desirable manner, proper planning for the network is essential, which is why the county has adopted the Virginia Department of Transportation Six Year Improvement Program. The County's partnership with VDOT includes VDOT maintenance of County roads which have been inspected and accepted by VDOT.



A. Functional Classifications of Roads

Roads in rural counties such as Orange serve different purposes and meet different needs than those in more urban areas. Rural arterial roads are intended for a higher degree of mobility while rural collector roads are intended for greater access to property. All roads within Orange County can be placed into 1 of 4 VDOT functional classifications, which are illustrated in the 2005 VDOT Functional Classification road map (see Appendix):

Primary Roads

Rural Minor Arterial - Interconnect with and augment the rural principal arterial system and provide service to trips of moderate length at a lower level of travel mobility than principal arterials. They include all arterials not classified as a principal and contain facilities that place more emphasis on land access, and offer a lower level of traffic mobility. Routes 3, 20 (east of the Town of Orange), 522, 15, 231 and 33 are rural minor arterials and the extent of primary roads within the county.

Secondary Roads

Rural Major Collector - Provide service to any county seat not on an arterial system, to larger towns not directly served by higher systems and link the above to nearby larger towns or routes of higher classification. They serve the more important intra-county travel corridors. Route 20 (west of the Town of Orange), Zoar Rd, Lahore Rd, Monrovia Rd, Mine Run Rd and Flat Run Rd, among others, are rural major collectors.

Rural Minor Collector - Spaced at intervals and consistent with population density. They collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road. These roads also provide service to the remaining smaller communities and link local traffic generators with their rural hinterland. Scuffletown Rd, Burnley Rd and Cox Mill Rd, among others, are rural minor collectors.

Rural Local/Unclassified - Serves primarily to provide direct access to adjacent land and/or to provide service to travel over relatively short distances as compared to collectors or other higher systems. All roads not falling under one of the above classifications are either rural local or unclassified.

B. Air Transportation

Two general aviation airports are located in Orange County.

The Orange County Airport is a public, general aviation airport that is located three miles northeast of the Town of Orange on State Route 20, has a 3,200 foot runway with a parallel taxiway and will accommodate turboprop and propeller driven aircraft of 12,500 pounds or less. It has a modern Automated Weather Observing System (AWOS-III) to provide pilots real time weather data to promote safe operations.

The Orange County Airport has a 24 hour self-serve fueling system for both



Jet-A and 100 Octane Low Lead aviation fuels. The County offers 10 “T-hangars” for lease, also 19 paved and 17 grass tie downs to facilitate based and transient aircraft. Under long term lease with the County, Tracy Corporation built an additional 18 modern “T-hangars” and offers them for lease to private citizens and businesses. At the conclusion of the lease, ownership of the hangars convey to the County. Additional Airport services include aircraft maintenance and flight instruction. Approximately 40 aircraft are based at the Orange County Airport.

Gordonsville Municipal Airport, a local service airport, is owned by the Town of Gordonsville and is located on 34 acres a mile north of Gordonsville, on US 15. The airport has one 40 foot wide runway, which is 2,300 feet long. There are 12 hangars, which includes 10 “T-hangars,” 1 large main hanger, and 1 single hanger.

C. Alternative Transportation

Multi-Use Trails/Pathways

Trails provide a means of alternative transportation to connect the user with the natural and historic assets of Orange County, which in turn, promotes our rural character and celebrates our cultural heritage. Ultimately, a well-connected and expansive trail system enhances the quality of life for citizens.

A major benefit of developing a system of multi-use trails is to provide interconnectivity between the built environment and the natural landscape. This fosters an appreciation for open space and recreation, but more importantly provides residents a means of traveling from point A to point B without relying on a vehicle. The integration of the built environment with the natural landscape also provides several mental and physical health benefits. This concept of interconnectivity will be an important element of future planning efforts as the county implements the Germanna-Wilderness Area Plan (GWAP).

As the county works toward the stated strategy of developing an alternative transportation plan, communication with the citizens, private land owners, towns and adjacent localities is essential toward developing and implementing a successful plan. At a minimum, multi-use trails should accommodate pedestrians, bicyclists, hikers, and the equestrian community. Opportunities for connections to trails in adjacent localities should be strongly encouraged, particularly in the northeastern and southern areas of the county.

A trails committee was formed in 2010 to identify elements for inclusion into the Comprehensive Plan and to propose several routes for trail development. Those elements are included in Goals, Objectives and Strategies Implementation section of this Plan. The county should continue this coordinated effort into the future.



Sidewalks

Rural counties generally lack the need for a well-developed sidewalk network due to the scattered, low density development. However, there are relatively well-developed sidewalks in both towns, but no connectivity with other nearby areas or anywhere outside town limits. The establishment of sidewalks and connection to existing sidewalks should be encouraged in the following areas:

- Areas contiguous to the existing sidewalk network in the Town of Orange. East Main Street, West Main Street and Rt. 15 N have sidewalks that terminate roughly at the town limits. As these areas expand, particularly Rt. 15 N, extending the existing sidewalks to serve the new development should be encouraged.
- Areas contiguous to the existing sidewalk network in the Town of Gordonsville. West Gordon Avenue, East Gordon Avenue and Cox Mill Road have sidewalks that terminate near the town limits. Sidewalk extension and connectivity should be encouraged as these areas expand.
- New development in the Germanna-Wilderness Area (GWA). All mixed-use development should contain extensive sidewalks. Residential development near existing or future commercial and institutional uses should establish sidewalks that connect to existing facilities in order to promote a more pedestrian-oriented environment.

Bicycles

Although recreational cycling is growing in popularity, Orange County roads lack cautionary signs or special marking to separate cyclists from vehicle traffic. Current population and demand don't warrant proactive installation of dedicated bicycle lanes. However, as certain roads are resurfaced and/or upgraded, the county should work with VDOT to install dedicated bicycle lanes or extra roadway width to accommodate cycling, as has been done in nearby counties. Roads identified as Virginia Byways (Rt 15 N, Rt 20 south of the Town of Orange, Rt 231 and Rapidan Rd) are ideal candidates, as are other primary roads and major collector roads. Cyclists are attracted by roads with low traffic and moderate terrain, especially those roads enhanced by scenic views. There are numerous roads in Orange County that fit these criteria, so it is important to ensure such roads can accommodate both automobiles and cyclists. At a minimum, "Share the Road" signs should be installed on selected roads to alert motorists that cyclists may be present.

As with sidewalks, the county should support and strongly encourage bicycle infrastructure in all new development within the GWA. A variety of transportation choices in the GWA will be important as the area continues to develop. If implemented in a coordinated manner, having transportation choices can curb automobile usage, enhance property values and promote a healthier lifestyle.



D. Transportation Improvements

Most future transportation improvements will be located on or near Constitution Hwy (Rt 20) since it is the longest primary highway in the county and one of the most heavily traveled. It is also the only major road to connect the eastern and western portions of the county. The majority of improvements recommended by the VDOT Phase I (July, 2006) and VDOT Phase II (June, 2007) Route 20 Corridor Study have been included in the Proposed Transportation Improvements chart below. Additionally, 2 bridges in the county have been designated as “structurally deficient” under VDOT’s classifications, meaning they will require replacement or rehabilitation in the near future. Four safety projects are identified from the 2035 Regional Long Range Transportation Plan.

The GWAP identifies several major transportation projects planned along or near Germanna Hwy (Rt 3), including the construction of a new parkway, the realignment of the Constitution Hwy (Rt 20)/Germanna Hwy (Rt 3) intersection, and the improvement of existing roadways. The County will consider projects from the cited studies and/or other planning documents listed in the chart below for incorporation into VDOT’s 6 Year (SYIP) Improvement Program as appropriate and as funding becomes available.

Identified Potential Transportation Improvements				
Identified in the FY 2016 VDOT 6-Year Improvement Program				
Road(s)	Location	Project	Timeframe	Total Cost Estimate (2015 dollars)
Germanna Hwy (Rt 3)	Intersection with Constitution Hwy (Rt 20)	Intersection improvements	FY2017-2021	\$1.3 million
Marquis Rd (Rt 669)	Between Monrovia Rd (Rt 612) and Lahore Rd (Rt 629)	Widen and improve road surface	Construction by FY2017	\$2.1 million
Catharpin Rd (Rt 606)	Between Saint Just Rd (Rt 692) and the Spotsylvania County line	Surface treat non-hard surface road	Construction by FY2017	\$1.71 million
Indiantown Rd (Rt 603)	Between Governor Almond Rd (Rt 614) and Lewistown Rd (Rt 715)	Surface treat non-hard surface road	Construction by FY2020	\$1.175 million
River Rd (Rt 636)	1.85 miles west of Bushy Mountain Rd (Rt 626)	Improve 0.15 of a mile of non-hard surface road	Construction beginning in FY2020	\$425,000



Meadows Rd (Rt 608)	Intersection with Mine Run Rd (Rt 621)	Surface treat non-hard surface road	Construction beginning in FY2020	\$700,000
Greenwood Rd (Rt. 635)	Near Constitution Hwy (Rt 20) intersection	Bridge replacement	Construction in FY2018	\$1.251 million
Identified in Route 20 Corridor Study (Phase II)				
Road(s)	Location	Project	Timeframe	Total Cost Estimate (Inflation adjusted 2007 dollars)
Constitution Hwy (Rt 20)	Intersection with Crestview Dr (Rt 2016)	Install eastbound turn lane	TBD	\$105,000
Constitution Hwy (Rt 20)	Intersection with Brick Church Rd (Rt 631)	Install westbound turn lane	TBD	\$105,000
Constitution Hwy (Rt 20)	Intersection with Porter Rd (Rt 625)	Install westbound turn lane	TBD	\$105,000
Constitution Hwy (Rt 20)	Intersection with Kendall Rd (Rt 600 E)	Install eastbound and westbound turn lanes	TBD	\$105,000
Constitution Hwy (Rt 20)	Intersection with Village Rd (Rt 671)	Install eastbound turn lane	TBD	\$105,000
Identified in Route 20 Corridor Study (Phase I)				
Road(s)	Location	Project	Timeframe	Total Estimated Cost (Inflation adjusted 2006 dollars)
Zachary Taylor Hwy (Rt 522 S)	Intersection with Village Rd (Rt 671)	Shift intersection to the south	TBD	\$815,000
Constitution Hwy (Rt 20)	Intersection with Mine Run Rd (Rt 621 S)	Install westbound turn lane on Rt 20 and turn lane on Mine Run Rd	TBD	\$235,000
Strawberry Hill Rd (Rt 742)	Intersection with Mine Run Rd (Rt 621 S)	Shift intersection to the south	TBD	\$175,000



Constitution Hwy (Rt 20)	Intersection with Pine Stake Rd (Rt 621 N)	Relocate intersection east to connect with Mine Run Rd (Rt 621 S)	TBD	\$830,000
Constitution Hwy (Rt 20)	Intersection with Burr Hill Rd (Rt 692 N)	Relocate Grasty Gold Mine Rd (Rt 692 S) to connect with Burr Hill Rd (Rt 692 N)	TBD	\$700,000
Constitution Hwy (Rt 20)	From Zoar Rd/Gold Dale Rd (Rt 611) to Germanna Hwy (Rt 3)	Widen road to a 4-lane divided highway	TBD	\$28.4 million
Bridges/Culverts Identified as "Structurally Deficient" by VDOT				
Road(s)	Location	Project	Timeframe	Total Estimated Cost (2013 dollars)
Constitution Hwy (Rt 20)	VA Structure #1040: Branch culvert	Replace culvert under Constitution Hwy (Rt 20)	TBD	\$50,000
Jacksontown Rd (Rt 639)	Bridge crossing Norfolk Southern Railway	Bridge replacement	TBD	\$1.251 million
Identified in the RRRC 2035 Regional Long Range Transportation Plan				
Road(s)	Location	Project	Timeframe	Total Estimated Cost (2013 dollars)
Radney Rd (Town)	West of the Town of Orange	Extend Radney Rd to intersect with Spicer's Mill Rd (Rt 633)	TBD	\$750,000
Spicer's Mill Rd (Rt 633)	From Constitution Hwy (Rt 20) to Town of Orange	Address geometric deficiencies of the roadway	TBD	\$1 million
Constitution Hwy (Rt 20)	Intersection with Spotswood Trail (Rt 33)	Address safety deficiencies at both intersections with Rt 33	TBD	\$250,000



Other Transportation Projects				
Road(s)	Location	Project	Timeframe	Total Estimated Cost (2013 dollars)
Constitution Hwy (Rt 20)	Intersection with Germanna Hwy (Rt 3)	Relocate intersection 0.45 of a mile to the north	Complete by 2065	\$5 million
Germanna-Wilderness Area Parkway	To connect A&K Boulevard to the eastern portion of Germanna Hwy (Rt 3)	Construct a new 3.5-mile parkway north of Germanna Hwy (Rt 3)	Complete by 2065 (to be constructed in stages)	\$20 million
Goodwin Dr (Rt 1059)	Across from the main Lake of the Woods entrance on Germanna Hwy (Rt 3)	Extend roadway northward by 0.4 of a mile to intersect the planned parkway	2035	\$2.75 million
Locust Grove post office stub road	Adjacent to the Locust Grove post office on Germanna Hwy (Rt 3)	Name roadway and extend northward by 0.25 of a mile to intersect the planned parkway	2035	\$1.65 million
Pilgrim Church Rd	Intersection with Germanna Hwy (Rt 3)	Close the current intersection, shift it to intersect the planned Goodwin Dr (Rt 1059) extension, and improve/straighten the remaining 1 mile of roadway.	2045	\$3 million
Vaocluse Rd (Rt 667) & Chewing Rd	Intersection with Germanna Hwy (Rt 3)	Close the current intersection, shift it to connect to the planned parkway, and improve/straighten the remaining 1 mile of roadway.	2045	\$3 million
Flat Run Rd (Rt 601) & Governor Almond Rd (Rt 614)	Approximately ¾ of a mile north of Locust Grove Middle School	Construct a ¾ mile 2-lane connector road	2050	\$2.2 million



Flat Run Rd (Rt 601)	Between Germanna Hwy (Rt 3) and Constitution Hwy (Rt 20)	Improve/rehabilitate roadway north of Locust Grove Middle School, realign certain sections, and install pedestrian/bicycle facilities	2040	\$10 million
Indiantown Rd (Rt 603)	Between Flat Run Rd (Rt 601) and Governor Almond Rd (Rt 614)	Rehabilitate roadway and install pedestrian/bicycle facilities	2050	\$850,000
Governor Almond Rd (Rt 614)	Between Indiantown Rd (Rt 603) and the planned connector road	Rehabilitate roadway and install pedestrian/bicycle facilities	2055	\$1.1 million

VII. Capital Improvements Plan

The Capital Improvements Plan (CIP) is the primary mechanism for long-range planning and funding of various public facilities and improvements such as schools, public safety facilities and equipment, the airport, municipal solid waste collection and disposal, water and wastewater provision/treatment, recreation facilities, libraries, and other public infrastructure investments. The CIP, in essence, coordinates and aligns revenues from local, state, federal, and grant sources to fund projects which implement the goals and objectives contained within the Comprehensive Plan. Orange County prepares an annual capital budget as part of the budget preparation and adoption, which includes the updating of the five-year CIP. The CIP is both a budgeting document and a plan, and should be referred to for the specifics of a given project and its funding source.

The Orange County CIP lists capital projects by both description and by county department or function, and details the anticipated funding source for each project and its timing by fiscal year. The CIP does not commit the County to a particular expenditure in a particular year, but rather provides a reasonable schedule by which capital projects are to be completed under normal budgetary conditions. The county has adopted financial policies, one of which stipulates the establishment of a dedicated reserve account for CIP monies and another of which stipulates annual baseline funding for this account. This provides for more consistent coordination between the county's budget and Comprehensive Plan.



ORANGE COUNTY, VIRGINIA 2013 COMPREHENSIVE PLAN

Technical Supplement



VIII. Natural Resources

A. Climate

The climate of Orange County ranges from mild winters to warm and humid summers. Over the course of a year, the temperature typically varies from 25°F to 88°F and is rarely below 15°F or above 95°F.

B. Physical Geography

Orange County is located in the upper part of the Piedmont Plateau and wholly within the Piedmont geological province. In Virginia, this province lies between the Blue Ridge province on the west, and the Coastal Plain on the east. The Physiographic Map (please see Appendix) illustrates the Commonwealth's geological provinces.

The County contains nine different rock formations according to the geologic map of Virginia. First, the Lynchburg formation (first found in the Lynchburg area), is on the western side of the County, adjacent to Greene County. This area is highly dissected by intermittent and permanent streams, has a well-defined drainage pattern, and ranges from gently sloping to steep.

East of the Lynchburg formation is the Newark group of rocks which underlies the communities of Barboursville and Somerset. This formation also occupies small areas along the east side of the Rapidan River and extends to Raccoon Ford. All the rocks of Triassic age, namely sandstone, red shale, siltstone, and conglomerate, are in this group. These areas are composed of wide, sloping ridges, and of small hilly and steep places along the larger streams.

The drainage pattern is dendritic (or shaped like a tree), but is less well-developed than in other parts of the County. The smoothest areas are those underlain by red shale and the roughest ones are those underlain by sandstone.

East of the Newark group is the Catoclin formation in the Southwestern Mountain Range. This range extends to Clarks Mountain, which lies northeast of the town of Orange. The drainage pattern in the area is well-defined. This area ranges from gentle to steep slopes.

East of the Catoclin is the largest formation in the County, consisting of metamorphosed and sedimentary and inter-layered igneous rocks that overlie the Virginia Blue Ridge complex, previously mapped as Wissahickon schist and granite gneiss, phyllite, and schist. The area is dissected by intermittent and permanent streams and has a well-defined drainage pattern. It ranges from nearly level to steep.

The Everona limestone outcrop lies in a narrow band extending from Gordonsville through Nasons to the Rapidan River, generally confined to road cuts and stream beds. The Everona Limestone Spur, located in this band, contains one of the County's greatest groundwater assets.

Two areas underlain by granite are in Thornhill and Locust Grove. The topography in these areas is characterized by both relatively level areas and



steep areas. An area underlain by quartz diorite lies west of Locust Grove. Most of this area is nearly flat, but it ranges from nearly level to sloping, and has a drainage pattern that is not well defined. Between Ridge Run and Terry's Run is a small area underlain by hornblende, gabbro, gneiss, and talc. The topography in this area ranges from nearly level to moderately steep.

Significant extractive minerals contained in the area's geology include: Copper, gold, iron, limestone, soapstone, greenstone, granite, talc, manganese, and shale. Other known minerals include asbestos, barite, graphite, sulfur, and galena.

The topography of the County includes broad valleys and rolling hills. Elevations range from 200 to approximately 1,200 feet, with the higher areas scattered throughout the County. Elevations are lowest in the basin of the Rapidan River along the northern border of the County. Some of the highest points in the County range from 913 feet (Hardwick Mountain) and 1,197 feet (Cowherd Mountain). The Steep Slopes Map (see appendix) illustrates locations of extreme elevation changes in the County, which tend to transect the County north of Route 15 to the west of the Town of Orange and north of Route 20 in the Rapidan area.

The County is well dissected and mostly rolling. The interstream divides are fairly wide and are sloping or rolling, except in areas along the lower tributaries of large streams, where entrenchment has been rapid and bluffs and valleys are common. The walls of the valley are steep, rising abruptly from floodplains. The steepest areas are underlain by greenstone, sandstone, and conglomerate.

C. Water Resources

Based on US Census Data (2010), approximately 1.7 square miles, or .005% of the County's total area contains surface water. The Rapidan, North Anna, and Rivanna Rivers supply surface drainage in the County. The Rapidan River also serves as a major water source for community water services, such as those provided by the Towns of Gordonsville, Orange, and the Rapidan Service Authority, a privately-owned water and sewer provider.

D. Surface Water

The northern half of Orange County drains to the Rapidan River and is located in the Rappahannock River watershed, the southern half of the County drains to the North Anna River and is located in the York River watershed, and the extreme southwestern corner of the County drains to the Rivanna River and is located in the James River watershed. Floodplains in the County are incorporated by reference in County Code through the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map series (FIRM).

The North Anna River and its tributaries have their headwaters in Orange County. These streams are not large, and they supply only a small amount of water. Surface water is soft and of good quality. Three primary tributaries of



the North Anna River, namely Pamunkey Creek, Terry's Run and Negro Run serve as "fingers" of Lake Anna that extend into the County. Approximately 23% of the watershed for Lake Anna is located in Orange County.

Other surface water areas in Orange County include Lake Orange, a 124 acre public fishing lake owned by the Virginia Department of Conservation and Recreation. Lake of the Woods (LOW), a planned residential community with approximately 4,260 lots. LOW contains two lakes, the Main Lake and Keaton's Lake. The Main Lake contains 500 acres, and is fed by Flat Run Creek and several springs. Keaton's Lake (named after Keaton's Run Creek) contains 35 acres. Each lake is impounded with a dam. Inundation zone maps are found in the Lake of the Woods Emergency Action Plan (available on LOW website).

E. Groundwater

The condition and availability of groundwater is directly related to the bedrock geological formations. For purposes of this subsection, the County is underlain by three distinct geological provinces: 1) The Blue Ridge Province; 2) the Piedmont Province; and 3) the Mesozoic Culpeper and Barbourville Basins. Perhaps one of the largest aquifers in the County is located within the Everona Limestone Spur, located along Route 15, between the Towns of Gordonsville and Orange.

The Groundwater Protection Zone map (please see Appendix) illustrates their general locations in the County. Because faults exist in the geological structure of the County and the region, (Source: 2006 Draft Water Supply Study, EGGI), their presence influences groundwater flow and aquifer recharge capacity, as does fractures, faults or other conditions of the respective bedrock formations. The chief source of groundwater recharge in a well or well field is precipitation, which is transported by the fractures, etc.

Average precipitation in Orange County is roughly 42 inches (Wiley and Wilson, 2006). Runoff acts as the conveyance to the subsurface geological formations, and land use activities contribute to the quality of the water.

F. Soils

The characteristics of soils have a significant impact on land use. Some soils have low bearing capacity or shallow depth-to-bedrock, and may be unsuitable for development.

Other soil types impose severe limitations for septic drain fields. The Soils Map (see Appendix) illustrates the general location and characteristics of the different soil types in Orange County.



IX. Demographics

Demographics enable planners to use the data as an analytical tool to measure trends and issues during the development of land use planning policy.

A. Population

The population in Orange County increased 29.4% between 2000 and 2010, representing an (mean) annual growth rate of 2.9%.

CHART 1: POPULATION 2000 AND 2010			
	2000	2010	% RATE OF CHANGE
POPULATION			
Total Population	25,881	33,481	29.4
AGE			
Under 5 years	1,552	2,008	29.4
5 to 19 years	4,947	6,370	28.8
20 to 24 years	1,134	1,538	35.6
25 to 34 years	3,015	3,580	18.7
35 to 44 years	4,169	4,377	5.0
45 to 59 years	5,114	7,356	43.8
60 to 74 years	4,070	5,698	40.0
75 and over	1,880	2,554	35.9
MEDIAN AGE			
Median Population Age (in years)	40.4	42.6	5.4
GENDER			
Male	12,524	16,422	31.1
Female	13,357	17,059	27.7

Source: U.S. Census 2010

B. Housing

One measurement of a community's changing population profile is by examining residential land use, specifically, housing. To examine the distribution of the population in terms of residential development, persons per household is a standard measurement tool.

Chart 2 illustrates persons per household (pph) by dividing the population by the number of housing units, based on 2000 and 2010 population and housing data derived from the U.S. Census. Orange County remained relatively stable between 2000 and 2010 at 2.29 persons per household (2010).



CHART 2: OCCUPIED HOUSEHOLD DATA			
	2000	2010	% RATE OF CHANGE
OCCUPIED HOUSEHOLDS			
Total Households	10,150	12,895	27.0
HOUSEHOLDS BY TYPE			
Family Households (Families)	7,471	9,342	25.0
With Own Children under 18 years	3,002	3,586	19.5
Married-couple family	5,962	7,323	22.8
With Own Children under 18 years	2,183	2,581	18.2
Female householder, No husband present	1,084	1,411	30.2
With Own Children under 18 years	566	691	22.1
Nonfamily Households	2,679	3,553	32.6
Householder living alone	2,248	2,905	29.2
Householder 65 years and over	1,028	1,248	21.4
Households with Individuals under 18 years	3,367	4,123	22.5
Households with Individuals 65 years and over	3,055	4,210	37.8
Average Household Size	2.5	2.55	2.0
Average Family Size	2.9	2.97	2.4

Source: U.S. Census 2010

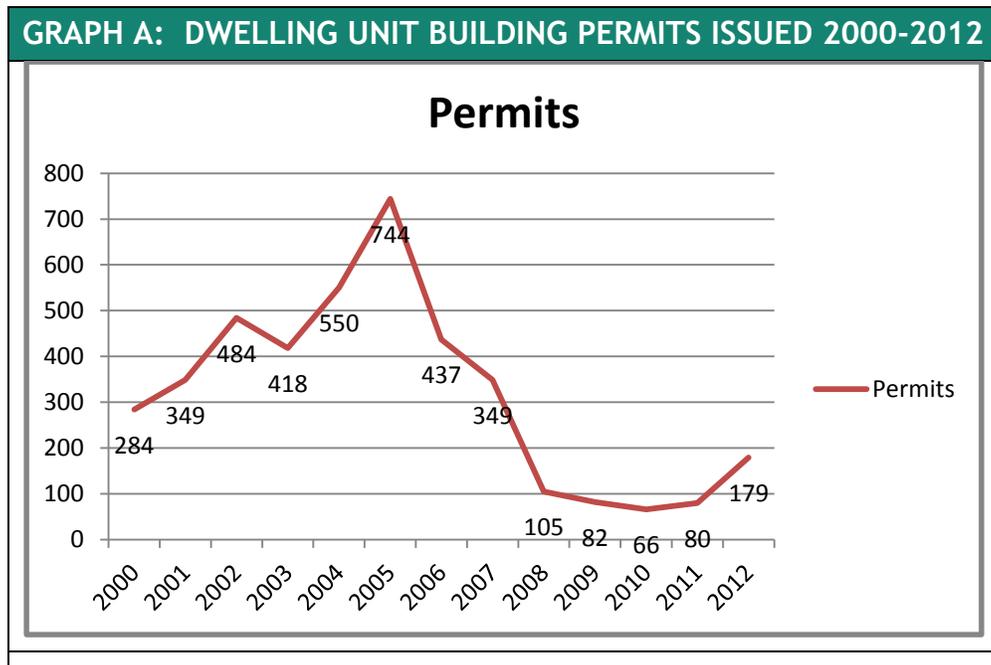
Chart 3 and Graph A present data on Dwelling Unit Building Permits issued each year, from 2000 to 2012. During the 12-year period, total units increased by 4,217 units. The number of permits issued for new housing units in 2012 showed a spike in new units due to 100 permits issued for Round Hill Meadows, a multi-family project located in the Town of Orange.

CHART 3: HOUSING OCCUPANCY, 2000 AND 2010			
	2000	2010	% RATE OF CHANGE
TOTAL HOUSING UNITS			
Total Housing Units	11,354	14,616	28.7
Occupied Housing Units	10,150	12,985	27.0
Vacant Housing Units	1,204	1,721	42.9
For seasonal, recreational, or occasional use	484	592	22.3
Homeowner vacancy rate (percent)	2.1	2.9	38.1
Rental vacancy rate (percent)	4.7	8.1	72.3



Chart 3 Continued			
	2000	2010	% RATE OF CHANGE
HOUSING TENURE			
Total Occupied Housing Units	10,150	12,985	27.0
Owner-occupied housing units	7,822	9,890	26.4
Renter-occupied housing units	2,328	3,005	29.1
Average household size of owner-occupied unit	2.51	2.55	1.6
Average household size of renter-occupied unit	2.46	2.56	4.1

Source: U.S. Census 2010



Source: Orange County Building Department, 2008 and 2012

C. Household Income

The estimated household income in Orange County, in 2010 inflation-adjusted dollars, was \$53,939, based on information obtained from the United States Census Bureau. Chart 4 provides a breakdown of this information based on the total number of households in the county.



CHART 4: HOUSEHOLD INCOME ESTIMATES	
HOUSEHOLD INCOME*	ESTIMATED NUMBER OF HOUSEHOLDS
Total Households	12,417
Less than \$15,000	1,066
\$15,000 - \$34,999	2,601
\$35,000 - \$49,999	1,772
\$50,000 - \$74,999	2,603
\$75,000 - \$99,000	1,650
\$100,000 - \$199,000	2,342
Greater than \$200,000	383

*In 2010 inflation-adjusted dollars
 Source: American Community Survey, 2009-2011

D. Economic Conditions

Orange County is home to diverse economic activities, from agricultural to manufacturing. As mentioned in the Existing Land Use section, much of the land use in the County is Agricultural and Forestal; yet it employs approximately 6% of the labor force. The majority of the labor force employment is based in the service industry, i.e. public sector employment. The following sections address the various components of the economy in Orange County.

E. Civilian Labor Force

Civilian labor force data generally describes individuals over the age of 16, who are not serving in the military nor institutionalized, and either employed or unemployed. The size of the labor force has generally followed the increase in population. According to Virginia Employment Commission data, there was an increase from 12,661 workers in 2000 to 15,322 workers in 2012

F. Unemployment

The unemployment rates for 2007 - 2012 are presented in Chart 5.

CHART 5: UNEMPLOYMENT RATES FOR ORANGE COUNTY, VIRGINIA AND THE UNITED STATES, 2007-2012			
YEAR	ORANGE COUNTY	VIRGINIA	UNITED STATES
2007	3.2%	3.1%	4.6%
2008	4.6%	4.0%	5.8%



Chart 5 Continued			
YEAR	ORANGE COUNTY	VIRGINIA	UNITED STATES
2009	8.0%	6.9%	9.3%
2010	8.0%	7.1%	9.6%
2011	7.5%	6.4%	8.9%
2012	6.6%	5.9%	8.1%

Source: Virginia Employment Commission
Local Area Unemployment Statistics, 2013

G. Commuting Patterns

The safe and efficient movement of people and goods is critical to the well-being of the citizens and the economy of Orange County. According to the 2010 U.S. Census, there are 3,236 people who live and work in the Orange County area, in addition to 4,072 “in-commuters” and 9,619 “out-commuters” - for a “net in-commuters” of -5,547.

H. Business and Economy

The health of the local economy in general, and the level of businesses’ activity directly, are the dominate factors in Orange County’s fiscal soundness. Of the approximately \$42 million in local tax revenues expected to be collected in FY 2013, approximately 36% is derived from economic activity, paid by businesses or linked to individual purchase decisions. Chart 6 summarizes some of these taxes that support local government services.

CHART 6: ANTICIPATED LOCAL TAXES FOR FY13 FROM BUSINESSES AND THE LOCAL ECONOMY	
Public Service Corporation Taxes	\$1,062,394
Business Real Estate Taxes	2,000,000
Business Equipment Taxes	\$713,110
Machinery and Tools Taxes	\$379,190
Merchants Capital Tax	\$142,020
Total Direct Business Taxes	\$4,296,714
Individual Personal Property Taxes	\$6,421,902
Local Sales and Use Tax	\$2,250,750
Consumers Utility Taxes	\$2,285,109
Motor Vehicle License	\$951,592
Recordation Tax	\$388,961
Utility, Lodging & Bank Stock	\$63,242
Meals Tax	\$650,700



Chart 6 Continued	
Total Economic Activity Taxes	\$13,012,256
Total Economic Tax Revenue	\$17,308,970

Source: Orange County Budget, FY2014 (adopted)

According to the Virginia Department of Taxation, 616 businesses in Orange County generated taxable sales of over \$200 million in 2012. Chart 7 below lists the number of businesses and sales of the top 10 industry groups.

CHART 7: TOP 10 TAXABLE SALES BY BUSINESS CLASSIFICATION FOR 2012			
NAICS	BUSINESS CLASSIFICATION	# OPERATING	AMOUNT (\$)
445	Food and Beverage Stores	20	49,601,471
722	Food Services and Drinking Places	68	30,466,795
447	Gasoline Stations	14	15,959,040
452	General Merchandise Dealers	17	15,476,268
441	Motor Vehicle and Parts Dealers	21	14,477,512
444	Building Material and Garden Equipment	17	10,010,234
422	Wholesale Trade; Nondurable Goods	5	6,872,982
312	Beverage and Tobacco Products	8	5,120,885
454	Nonstore Retailers	45	5,063,896
4446	Health and Personal Care Stores	7	4,853,460

Source: Virginia Department of Taxation, 2013.

I. Wages

As of the 4th quarter 2012, there were 859 businesses operating in the County providing approximately 8,598 jobs. The average weekly wage in Orange County in the 4th quarter of 2012 was \$671, compared to \$1,042 for the state. The data is provided in Chart 8 below.

CHART 8: TOP 10 INDUSTRIES' AVERAGE WEEKLY WAGE (4 TH QUARTER 2012)		
RANK	INDUSTRY	AVG. WEEKLY WAGE
1	Educational Services	\$1,080
2	Information	\$942
3	Transportation and Warehousing	\$1,040
4	Finance and Insurance	\$1,546



Chart 8 Continued		
RANK	INDUSTRY	AVG. WEEKLY WAGE
5	Wholesale Trade	\$937
6	Manufacturing	\$841
7	Professional, Scientific, and Technical Services	\$1,131
8	Government (total)	\$709
9	Administrative and Support and Waste Management	\$679
10	Agriculture, Forestry, Fishing, and Hunting	\$550
Average, Top 10 Industries		\$946
Average, All Industries		\$671

Source: http://virginalmi.com/report_center/community_profiles/510400137.pdf

J. Changes in Employment Base

The economy of Orange County continues to reflect a mix of agricultural, and forestal products, and general manufacturing employers. Chart 9 identifies the top private-sector employers in the County.

For example, based on data available through the U.S. Census' Local Employment Dynamics (LED) program, of the 1,297 new hires by industry data (2nd quarter 2012), 22% (284) were in the Accommodation and Food Services industry, 18% (231) in Agriculture, Forestry, Fishing and Hunting industry group, 14% (185) in Retail Trade, and 9% (121) were Manufacturing hires.

CHART 9: TOP PRIVATE SECTOR EMPLOYERS			
FIRM	PRODUCT	# OF EMPLOYEES	YEAR ESTABLISHED
Aerojet Rocketdyne	Defense Contractor	150	2004
American Woodmark Corp.	Cabinet Components	154	1980
Battlefield Farms, Inc.	Bedding/Holiday Plants	210	1989
Dogwood Village/Orange Nursing Home	Assisted Living/Nursing Home	297	1970
Klockner-Intertrans Carrier Co.	Motor Carrier/Distribution	82	1994
MPS	Book Publisher & Returns Center	295	1997
PBM Products/Perrigo Co.	Infant Formula Distributor	124	1997
RIDGID Products	Plumbing/Drain Equipment	135	1976
Zamma Corporation	Profile Molding	78	1998

Source: Orange County Economic Development.



As of the 4th quarter of 2012, there were more employees employed in government (federal, state and local) than any other industry in Orange County, followed by retail trade, manufacturing, accommodation and food services, and wholesale trade. Data was undisclosed for management of companies and enterprises, mining, quarrying, oil and gas extraction, and utilities. Chart 10 identifies the employment type by industry.

CHART 10: EMPLOYMENT BY INDUSTRY 4th QUARTER 2012		
INDUSTRY	# OF EMPLOYEES	% OF TOTAL
Agriculture, Forestry, Fishing and Hunting	508	5.9
Mining, Quarrying, and Oil and Gas Extraction*	-	-
Utilities*	-	-
Construction	356	4.2
Manufacturing	923	10.8
Wholesale Trade	557	6.5
Retail Trade	943	11.0
Transportation and Warehousing	175	2.0
Information	53	0.6
Finance and Insurance	205	2.4
Real Estate and Rental and Leasing	260	3.0
Professional, Scientific, and Technical Services	286	3.3
Management of Companies and Enterprises*	-	-
Administrative and Support and Waste Management	185	2.2
Educational Services	64	0.7
Health Care and Social Assistance	542	6.3
Arts, Entertainment, and Recreation	151	1.8
Accommodation and Food Services	721	8.4
Other Service (except Public Administration)	418	4.9
Government Total	2,199	25.7
Federal Government	54	0.6
State Government	489	5.7
Local Government	1,656	19.4
Unclassified	-	-
TOTAL	8,546	100

Note: Asterik (*) indicates non-disclosable data.

Source: Virginia Employment Commission
Quarterly Census of Employment and Wages (QCEW), 4th Quarter 2012



K. General Agricultural Statistics and Agricultural Employment

According to the U.S. Department of Agriculture’s 2007 Census of Agriculture, the total number of farms in the County was 518 in 2007 and the total farm acreage was 104,606 acres. 508 jobs in Orange County are identified as part of the Agricultural, Forestry, Hunting and Fishing industry sector.

The top agricultural industry in the County was “nursery, greenhouse, floriculture, and sod,” with sales totaling more than \$45,187,000. Orange was the state’s top producer in this category, accounting for 18.2% of the state’s total sales of \$248,153,000.

Orange County ranks eighth (8th) in the state in terms of hired labor payroll, with a dollar amount of \$11.1 million. In 2007, Orange County farms produced and sold \$76 million worth of products, ranked 7th in the state. Approximately 67% (or 345) of the farms in the County produce less than \$10,000 in sales, as detailed in Chart 11.

CHART 11: FARMS BY VALUE OF SALES (2007 DATA)		
	# OF FARMS	% OF TOTAL
Less than \$2,500	217	41.9
\$2,500 to \$4,999	53	10.2
\$5,000 to \$9,999	75	14.5
\$10,000 to \$24,999	66	12.7
\$25,000 to \$49,999	40	7.7
\$50,000 to \$99,999	15	2.9
\$100,000 or more	52	10.0
TOTAL	518	100

Source: 2007 Census of Agriculture - County Data, Table 2, USDA, NASS

Chart 12 provides a cursory overview of farming activity in Orange County based on the 2007 Census of Agriculture.

41 farms (8%) are sized between 1 and 9 acres. 145 (28%) farms in the County contain 10 to 49 acres, and 191 (37%) farms contain range from 50 to 179 acres. 141 farms (27%) have acreage ranging from 180 acres to over 1,000 acres.

Of the 518 farms in the County, 201 of the principal operators of those farms claimed that their principal occupation was farming, whereas 317 of them claimed “other” as their principal occupation.



CHART 12: 2007 GENERAL FARM STATISTICS	
Farms (#)	518
Land in farms (acres)	104,606
Average size of farm (acres)	202
Median size of farm (acres)	90
Farms by size	
1 to 9 acres	41
10 to 49 acres	145
50 to 179 acres	191
180 to 499 acres	92
500 to 999 acres	25
1,000 acres or more	24
Total cropland (# of farms)	341
In acres	45,202
Chart 12 (continued)	
Harvest Cropland (# of farms)	302
In acres	33,243
Principal operator by primary occupation	
Farming	201
Other	317

Source: 2007 Census of Agriculture - County Data, Table 1, USDA, NASS

It should be noted that the County also contains a thriving equestrian economy within the context of agriculture. Based on 2010 data contained in the 2011 study, “The Economic Impact of the Horse Industry in Virginia” (Rephann; Weldon Cooper Center for Public Service, March, 2011), the industry employed at least 268 workers; produced value-added goods of \$10,104,815 and generated sales of \$16,518,479. This activity resulted in tax revenue of \$511,381.

With regards to local forestry activity, at least \$2.3 million in timber value was generated by pine and hardwood in Orange County. The respective values were \$699,153 (pine) and \$1,638,119 (hardwood).

The tables on the following page illustrate the significance of forestry as a land use in Orange County.



CHART 13: 2007 AREA OF TIMBERLAND BY COUNTY AND SITE CLASS

SIZE OF TRACT IN ACRES	TOTAL # OF ACRES
225+	-
165-224	9,242
120-164	18,867
85-119	42,060
50-84	56,612
20-49	10,408
0-19	-
Total Site productivity class	137,190

Source: Miles, Patrick D. Jan-08-2008. Forest inventory mapmaker web-application version 3.0. St. Paul, MN: U.S.D.A., Forest Service, North Central Research Station.

CHART 14: AREA OF TIMBERLAND BY COUNTY AND RPA* FOREST TYPES

TIMBERLAND FOREST TYPES	ACRES
Loblolly Pine	9,112
Virginia Pine	6,990
Eastern Red Cedar / Hardwood	5,922
Virginia Pine / Southern Red Oak	2,820
Post Oak / Blackjack Oak	1,606
White Oak / Red Oak / Hickory	18,937
White Oak	12,789
Yellow Poplar / White Oak / Red Oak	8,388
Yellow Poplar	5,044
Black Locust	2,842
Chestnut Oak / Black Oak / Scarlet Oak	11,183
Red Maple / Oak	11,391
Mixed Upland Hardwoods	29,412
River Birch / Sycamore	7,523
TIMBERLAND FOREST TYPES	ACRES
Non Stocked	3,231
TOTAL	137,190

* Resources Planning Act of 1974

Source: Miles, Patrick D. Jan-08-2008. Forest inventory mapmaker web-application version 3.0. St. Paul, MN: U.S.D.A., Forest Service, North Central Research Station.



L. Tourism

The impacts of tourism can be measured by the amount of taxes generated from meals and lodging. Chart 15 below shows the growing impact of tourism on the local economy from 2007 to 2011. The Percent Change column represents changes in conditions from 2010 to 2011.

Dollar amounts within the table include activity within the towns of Orange and Gordonsville. The availability of lodging and restaurants within the town of Orange accounted for 87% of lodging taxes and 62% of food service taxes collected, respectively, in the county in 2011. Although specific data was unavailable for the town of Gordonsville, taxes collected related to food service within the town make up a significant portion of the total amount.

CHART 15: TOURISM-GENERATED ECONOMIC IMPACT FOR ORANGE COUNTY						
	2007	2008	2009	2010	2011	PERCENT CHANGE 2010-11
POPULATION	32,377	33,214	33,600	33,553	33,922	1.10%
TRAVEL ECONOMIC IMPACTS						
Employment	470	487	514	525	544	3.62%
Expenditures	\$32,569,755	\$34,579,525	\$34,704,780	\$37,841,579	\$41,683,509	10.15%
Local Tax Receipts	\$993,376	\$1,064,673	\$1,080,731	\$1,149,368	\$1,206,999	5.01%
Payroll	\$7,707,626	\$8,152,040	\$8,653,592	\$9,143,562	\$9,608,019	5.08%
State Tax Receipts	\$1,419,626	\$1,470,976	\$1,577,644	\$1,669,001	\$1,755,033	5.15%
LOCAL EXCISE TAX RATES						
Admissions Excise Tax Rate	0%	0%	0%	0%	0%	N/A
Food Service Excise Tax Rate	4%	4%	4%	4%	4%	N/A
Lodging Excise Tax Rate	2%	2%	2%	2%	2%	N/A
LOCAL EXCISE TAX COLLECTION						
Admissions Excise Tax Collected	\$0	\$0	\$0	\$0	\$0	N/A
Food Service Excise Tax Collected	\$1,463,180	\$1,492,415	\$1,456,889	\$1,419,440	\$1,518,804*	7.00%
Lodging Excise Tax Collected	\$81,578	\$114,867	\$110,429	\$103,839	\$111,467**	7.35%

Notes: * Food Service Excise Tax Collected: Orange Co. - \$577,864; Town of Orange - \$940,940
 **Lodging Excise Tax Collected: Orange Co. - \$14,561; Town of Orange - \$96,906

Source: Virginia Tourism Corporation: Virginia Locality Economic Impact Data, 2013.



M. Historic Resources

Orange County contains sites of prehistoric settlements, colonial outposts, Revolutionary War activities, Civil War battlefields, the lifelong home of President James Madison Jr., the birthplace of President Zachary Taylor, and the homes of five Virginia governors (Alexander Spotswood, James Barbour, James Lawson Kemper, Hardin Burnley and Lindsay Almond).

Most of the historic resources in Orange County are privately owned. Many of these sites, including the Exchange Hotel, Germanna, and Wilderness Battlefield are protected and interpreted by responsible stewards. Others, such as Spotswood's Enchanted Castle, provide opportunities for archaeological research. Greenwood, Hare Forest, and others remain as private homes. Willow Grove and the Barboursville ruins have been adapted for uses that combine preservation with commerce and tourism.

The residential portion of Robinson's Tavern has been removed, compromising its interpretive value. Mine Run Battlefield has not been delineated, and only initial steps have been taken to preserve or interpret the resources there.

A National Heritage Area, created by Congress, has identified the following sites as historic resources and has included them in its "Journey Through Hallowed Ground" preservation effort:

- Waddell Memorial Presbyterian Church
- Willow Grove
- Orange County Courthouse
- St. Thomas Church
- Ballard-Marshall House
- Mayhurst
- Montpelier
- Somerset Christian Church
- Madison-Barbour Rural Historic District
- Barboursville
- Gordonsville Historic District
- Exchange Hotel

In 1987, the Virginia Department of Historic Resources created the Madison-Barbour Rural Historic District (MBRHD) in recognition of the significant cultural, scenic and historic features found in the area. This is the largest of 21 rural historic districts in the Commonwealth; the MBRHD encompasses approximately 31,200 acres of land within the County. Please refer to the Madison Barbour Rural Historic District map in the appendix for further detail.



X. Public Services

A. Local Government

The political and administrative structure of any County in Virginia is dictated by the Code of Virginia. Virginia is one of several states which follow the Dillon Rule, which asserts that localities only have that authority expressly given to them by the state.

B. Board of Supervisors

The Board of Supervisors is the main legislative body for the County of Orange, comprising of five members elected to represent the five districts and serve four year staggered terms.

The Board of Supervisors sets County policies, fees, adopts ordinances, appropriates funds, approves land rezonings and special exceptions to the Zoning Ordinance, and carries out other responsibilities as set forth by the Orange County Code of Ordinances and the Virginia State Code.

C. Magisterial and Election Districts

The magisterial districts hold the traditional names of Gordon, Barbour, Spotswood, Madison, and Taylor; while the election districts were renamed in 1991 as Districts One through Five. Orange County's most recent reapportionment occurred in 2011 based on the 2010 census. The next reapportionment will occur in 2021.

D. Constitutional Officers

The Constitution of Virginia prescribes that every four years the following officers be elected at large by the voters of the County:

1. Clerk of the Circuit Court

The Clerk's Office assists the Circuit Court Judges in the execution of their judicial duties by preparing, recording, and maintaining court orders, subpoenas, and pleadings. The Clerk's Office also manages the Court's docket and juries. Case-related information and court documents are provided to state, local, and federal agencies as well as to the general public, attorneys, litigants, and the media. The Office is also responsible for maintaining land records and other historic records.

2. Commissioner of Revenue

The Commissioner is responsible for maintaining Real Estate ownership information and assessments, for administering the Tax Relief Program and the Land Use program. The Commissioner is also responsible for accurately assessing all personal and business property and for Individual income tax filing and processing in Orange County.



3. Commonwealth's Attorney

This office is responsible for providing the Commonwealth of Virginia with legal representation in the prosecution of all criminal cases in the general district court, circuit court, and juvenile and domestic relations district court, in addition to handling many civil penalties and forfeitures.

4. Sheriff's Office

The primary services provided by the Sheriff's Office include all levels of law enforcement: Courtroom security, civil process service, and shared operation of the law enforcement and emergency services communications networks with regional and state partners.

5. Treasurer

The Treasurer is an elected official directly responsible to the citizens of the locality for the receipt and collection of the revenue, the safekeeping of revenue, and the appropriate accounting for and disbursements of the revenue. The Treasurer is also responsible for the collection of the state funds under the Code of Virginia.

E. Administrator and Administrative Functions

The County Administrator is the chief administrative officer of the County. The County Administrator is the clerk to the Board of Supervisors, and works under the direction of the Board.

F. Animal Control

Animal Control is a separate function of the Sheriff's Office. It is responsible for collecting stray, sick, or aggressive animals and conducting animal welfare investigations.

G. Animal Shelter

The Orange County Animal Shelter is responsible for providing humane care to unwanted, lost, or abandoned animals. The Department's mission is to protect the animals entrusted in their care; find permanent homes for lost or abandoned pets; promote responsible pet ownership; and improve the quality of life in Orange County.

H. Building Inspections

The department oversees proposals for new construction and renovations of existing buildings in the County for proper construction of commercial facilities and residential buildings for safe occupancy. Gasoline and propane storage tanks, swimming pools, boat docks, private bridges and cell towers are all inspected. The department has recently taken on the responsibility for E-911 Street addressing for buildings and maintenance of street signs throughout the County.



I. County Attorney

The County Attorney's Office provides legal counsel and advice in civil matters to the Board of Supervisors and other boards, agencies and officials of the County as directed by the Board.

J. Emergency Communications Center (ECC)

The Orange County Emergency Communications Center provides residents of Orange County with an accessible, dependable, and rapid system of emergency communications.

K. Economic Development

The Department of Economic Development is responsible for recruiting new industry to the County, and serves as a liaison between the County and existing County industries and businesses.

L. Finance

The Finance Department is responsible for the accounting and management of all County financial resources.

M. Fire and Emergency Services

The Orange County Fire & EMS Department works in conjunction with the seven volunteer Fire and Rescue agencies in order to provide 24 hour emergency services to the citizens of Orange County.

N. Health Department

The Orange County Health Department is one of five offices in the Rappahannock-Rapidan Health District. The Health Department has regulatory responsibility for permitting and inspecting private wells and septic systems. This includes extensive fieldwork to determine suitable locations for wells and septic systems, supervision of their installation, and responsibility for investigating complaints and issuing repair permits. Subdivision proposals are also reviewed by the Health Department to ensure each lot is suitable for a well and septic system.

O. Library

The Orange County Library system currently operates three branches: 1) Town of Gordonsville; 2) Town of Orange; and 3) Wilderness. Orange County library branches serve all residents of adjoining counties as part of a reciprocal agreement with the libraries in those counties.

P. Office on Youth

The Office on Youth handles a variety of programs designed to serve the needs of the youth of the County, as well as serves as the administrative arm of the



Comprehensive Services Act, which administers state and local funds by a mandate.

Q. Parks and Recreation

The Parks & Recreation Department operates over 30 recreation programs throughout the County, including a wide range of athletic and non-athletic activities.

The Board of Supervisors has adopted a long term plan to provide a community park in each voting district. These parks will be developed with a combination of capital improvements funding and community support.

R. Planning and Zoning

The Department of Planning and Zoning responsibilities include: bio-solids monitoring, code enforcement, erosion and sediment control, long-range planning, subdivision and site plan review, and zoning enforcement.

S. Planning Commission

The role of the five-member commission is to act as an advisory body to the Board of Supervisors regarding land use policy, including current and long-range planning. They make recommendations to the Board of Supervisors for a variety of land-use requests which require public hearings, such as conditional rezonings, special use permits, major subdivisions, and Zoning and Subdivision Ordinance text amendments, in addition to making recommendations on the Comprehensive Plan.

By ordinance, the Board of Supervisors names one member from each election district to the Planning Commission, and annually appoints one Supervisor as a non-voting liaison to the Planning Commission.

T. Board of Zoning Appeals

The Board of Zoning Appeals role is to hear appeals from the decisions of administrative officers in connection with application of ordinances, and consider variance requests and special exception requests. The five members of the Board of Zoning Appeals are appointed by the Board of Supervisors to represent each voting district.

U. Public Education

Currently, there are nine schools located in Orange County. There are six elementary schools: Gordon-Barbour Elementary, Lightfoot Elementary, Locust Grove Primary, Locust Grove Elementary, Orange Elementary, and Unionville Elementary.

The County also has two middle schools and one high school: Locust Grove and Prospect Heights [Middle Schools], and Orange County High School.



1. Additional Public Education Opportunities:

a) *Germanna Community College*

The college has campuses in Orange County (on Route 3, near Lake of the Woods, on 100 acres adjacent to the Rapidan River), Fredericksburg, Culpeper, and Stafford. It employs a staff of approximately 600.

b) *Northern Piedmont Agricultural Research and Extension Center (NPAREC)*

This facility, operated by the Virginia Tech, was established in Orange County in 1940. Located on Route 15 south of the town of Orange, the center conducts research on soils and crops. Current research includes variety testing of corn, soybeans, wheat, barley, sorghum, canola and new crops; warm-season and cool-season perennial grass evaluation and maintenance; forages; soil fertility; soil erosion; and soil management.

V. Public Works

The Department of Public Works manages the County’s facilities, including buildings, landfill operations, and the County’s airport facilities.

W. Social Services

The Orange County Department of Social Services provides a wide range of Social Services and assistance programs serving local citizens. Services include the continuous services provided to adults and children facing abuse and neglect. Other services include determining eligibility for “SNAP” (formerly known as “food stamps”), Medicaid, fuel assistance, and temporary financial assistance.

X. Tourism

The Department of Tourism is responsible for Orange County's tourism promotion efforts; committed to raising the awareness of Orange County as a tourism destination, serving the needs of its visitors, enhancing its image and promoting its interest and name recognition-locally, nationally and internationally.



XI. Community Infrastructure

A. Water and Sewer Services

The following table contains data for water and sewer services in the County. For more detailed information, please refer to *Section V. Public Facilities, F. Community Infrastructure*.

CHART 16: WELLS AND DRAINFIELDS IN ORANGE COUNTY (2010)							
JURISDICTION	HOUSING UNITS			SERVED BY			
	TOTAL	OCCUPIED	VACANT	PUBLIC WATER	PUBLIC SEWER	PRIVATE WELL	PRIVATE SEPTIC
Orange County Total*	14,616	12,895	1,721	4,506	4,310	10,110	10,306
Town of Orange	1,991	1,779	212	2,299	1,916	-	75
Town of Gordonsville	710	632	78	780	780	-	-

*Includes L-O-W, Wilderness and Rt. 20 & Rt. 15 systems, and also includes Towns of Gordonsville and Orange.

B. Highways

As of December 31, 2009, there were 82.97 miles of primary roads in Orange County and 355.92 miles of secondary roads. There are six (6) primary roads in the County. US 15 is the major north-south route between Gordonsville and Orange, connecting the County with US 29 to the north and Interstate 64 to the south. US 33 is a southeast-northwest connection through Gordonsville and western Orange County. It provides access to Richmond to the southeast and to the Shenandoah Valley to the northwest.

US 522 traverses the center of the County from north to south and connects the County with Culpeper to the north and Interstate 64 in Louisa County to the south. State Route 3, one of two four-lane road segments in the County, traverses the eastern end of the County and provides easy access to Culpeper and Fredericksburg and other points north for travelers and commuters. State Route 20 runs southeast-northwest through the County, from Route 3 through the town of Orange, through the villages of Somerset and Barboursville, and on into Charlottesville. State Route 231, a north-south route, connects the County with Madison County to the north and Albemarle to the south.

Between 1999 and 2009, Route 3 from the Culpeper County line to Route 20 experienced a 42.5% increase in the number of vehicles per day. Route 15, south of Orange, has experienced an 8.1% increase during the same period. Route 20, northeast of Orange, has experienced significant growth during this time, with greater traffic volumes as the roadway approaches Route 3. Chart 17 contains traffic volumes major roads throughout the County.



**CHART 17: ANNUAL AVERAGE DAILY TRAFFIC COUNTS
1999-2011**

LOCATION			AADT (VEHICLES / DAY)					PERCENT CHANGE
ROUTE	FROM	TO	1999	2003	2007	2009	2011	1999 - 2011
3	Culp. CL	SR 20	9,124	12,604	13,000	13,000	13,000	42.5%
3	SR 20	Spot. CL	17,440	23,953	24,000	23,000	24,000	37.6%
15	Mad. CL	Orange	7,076	7,760	7,800	7,400	7,600	7.4%
15	Orange	G'Ville	9,249	12,587	11,000	10,000	10,000	8.1%
20	Alb. CL	US 33	1,999	2,269	2,500	2,000	2,300	15.1%
20	US 33	SR 231	2,405	2,663	2,800	2,600	2,500	4.0%
20	SR 231	Orange	4,168	3,632	4,400	3,800	3,700	-11.2%
20	Orange	Rte 629	9,814	10,916	13,000	11,000	12,000	22.3%
20	Rte 629	US 522	7,050	7,977	9,200	8,700	9,000	27.7%
20	US 522	Rte 650	5,915	6,642	7,900	8,500	8,600	45.4%
20	Rte 650	Rte 611	5,315	6,488	8,100	8,400	8,000	50.5%
20	Rte 611	SR 3	6,811	8,711	11,000	10,000	11,000	61.5%
33	Grn. CL	SR 20	6,373	6,662	6,800	6,200	6,400	0.4%
33	SR 20	G'Ville	4,814	5,248	5,100	5,100	5,300	10.1%
231	G'Ville	SR 20	854	948	1,100	900	980	14.8%
231	SR 20	Mad. CL	1,214	1,214	1,300	1,200	1,300	7.1%
522	Spot. CL	SR 20	1,857	2,020	2,500	2,500	2,400	29.2%

SR: State Route; CL: County Line
Source: Virginia Department of Transportation, 2013

**XII. Process for Review of Public Uses and Uses of a Public Nature
A. In General**

The purpose of this portion of the Comprehensive Plan is to identify standards and processes applicable to public uses and uses of a public nature, regardless of ownership, pursuant to § 15.2-2232 VA Code Ann. In general, no public facility, as defined herein, shall be constructed, established or authorized unless or until the general location or approximate location, character, and extent thereof has been submitted to and approved by the Planning Commission as being substantially in accord with the Comprehensive Plan, or part thereof.



Public Uses and Facilities

1. Public facilities, structures and uses, as those terms are used herein, shall include, but not be limited to, public streets, connections to existing streets, parks or other public areas, public buildings or public structures, public utility facilities, or public service corporation facilities, whether publicly or privately owned.
2. For purposes herein, the foregoing facilities, structures and uses shall be referred to as "public facilities." The term "public facility" or "public use" shall not include the business office of any of the foregoing unless owned and operated by a governmental body.
3. However, "public facilities" shall not include railroad facilities or underground natural gas or underground electric distribution facilities of a public utility as defined in § 56-265.1 VA Code Ann., within its certificated service territory, and shall not include a public telecommunications facility (except television and radio towers and structures not necessary to house electronic apparatus) that has received approval and funding by the Virginia Public Broadcasting Board pursuant to § 2.2-2426 *et seq.*, VA Code Ann., or by the Board of Education pursuant to § 22.1-20.1 VA Code Ann.

B. Public Facilities, Permitted in all Zoning Districts, Subject to Review in Accordance with § 15.2-2232, VA Code Ann.

Public facilities may be located within any zoning district in the County, subject to § 15.2-2232, VA Code Ann., this part and any Zoning Ordinance requirement or limitation. If a special use permit is required by the Zoning Ordinance, then any public hearing required by this part may be held concurrently with the public hearing for the special use permit.

C. Exceptions and Special Provisions for the Public Facility Determination Under § 15.2-2232. C and D, VA Code Ann.

1. The Planning Director shall deem public areas, facilities, or uses as features already shown in the Comprehensive Plan when they are identified within, but are not the entire subject of, a subdivision plan submitted in accordance with the Subdivision Ordinance, or of a site plan for development submitted in accordance with the Zoning Ordinance, and;



2. When the general or approximate location, character, and extent of those facilities is consistent with the provisions of the Comprehensive Plan or a part thereof.
 3. The public areas, facilities, or uses are the subject of a proffer accepted under the County's conditional zoning system.
 4. Paving, repaved, reconstruction, improvement, drainage or similar work and normal service extensions of public utilities or public service corporation facilities shall not require a public facility determination. For purposes of this section, widening, narrowing, extension, enlargement, vacation or change of use of public streets or public areas shall be subject to the requirement of a "public facility determination."
- D. Requirement of Full Review Under § 15.2-2232, VA Code Ann., Where No Exception Applies.**
1. Any public facility that the Planning Director cannot reasonably determine to be a feature shown in the Comprehensive Plan, or subject to an exception to Plan conformity review as set forth above, shall be submitted to the Planning Commission for its review in accordance with the provisions of this section.
- E. Procedure for Consideration of Applications for Public Facility Determinations.**
1. Application procedures. Submission of a site or subdivision plan shall constitute sufficient application for a determination as to plan conformity review under the provisions of this section unless the Planning Director requests more information under this section, or separate application may be made where no site or subdivision plan is submitted. The Planning Director may require any applicant to provide such additional information as needed to identify the nature, general or approximate location, character, and extent of the public use, structure, or facility proposed.
 2. The Planning Director shall determine whether the application is in proper form and shall advise the applicant of the date on which the application was accepted for review, or what further information is required to constitute a satisfactory application.
 3. When the Planning Director determines that the application is complete, the applicant and the Planning Commission shall be advised. The Commission shall hear and decide the application within 60 days, unless such time is extended by the Board of Supervisors prior to the expiration



of the 60 days. Notwithstanding the above, the Commission shall hear and decide all applications for telecommunication facilities, consistent with the requirements of the Federal Telecommunications Act of 1996, within 90 days, unless such time is extended by the Board by no more than 60 additional days, or the applicant has agreed to a voluntary extension of time. Failure of the Commission to make a final decision as required herein shall be deemed an approval of the application.

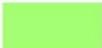
4. The Planning Commission may (and as directed by the Board of Supervisors shall) advertise and hold a public hearing regarding the application prior to making its decision.
5. The Planning Commission shall communicate in writing its findings indicating its approval or disapproval with written reasons therefore to the Board of Supervisors. The Planning Director shall communicate the Commission's determination with respect to any application to the Board of Supervisors and the County Attorney. The Planning Director may incorporate an applicant's request for an extension of the 60 day time frame for the Commission to hear and act upon those determinations scheduled for public hearing.
6. The Board of Supervisors may overrule the action of the Planning Commission by a vote of a majority of its membership.

F. Appeals.

1. An applicant aggrieved by the public facility determination of the Planning Commission may appeal that determination to the Board of Supervisors, by written petition giving the reasons for such appeal, filed with the Clerk to the Board within 10 days after the Commission's decision.
2. The Board shall hear and decide such appeal within 60 days after the date upon which the appeal was filed with the Clerk. The Board of County Supervisors may overrule the decision of the Planning Commission rendered hereunder by majority vote of its membership. Its decision thereon shall be final.

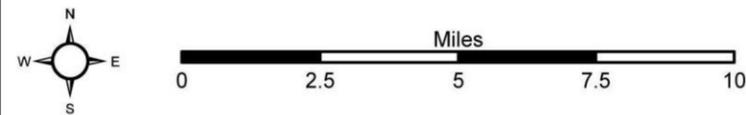
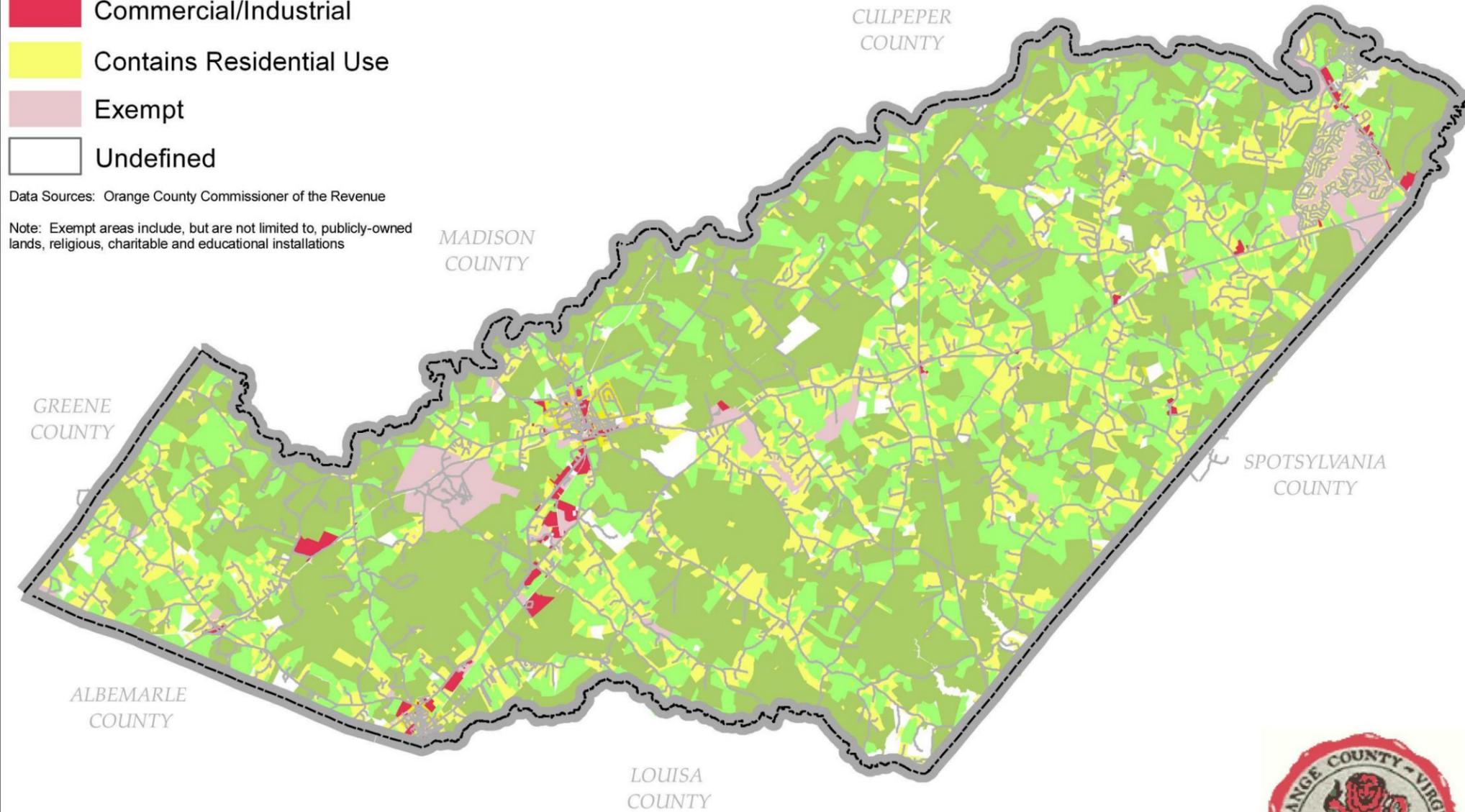


Tax Parcel Distribution

-  County Boundary
-  Agricultural (20 to 100 acres)
-  Agricultural (100+ Acres)
-  Commercial/Industrial
-  Contains Residential Use
-  Exempt
-  Undefined

Data Sources: Orange County Commissioner of the Revenue

Note: Exempt areas include, but are not limited to, publicly-owned lands, religious, charitable and educational installations



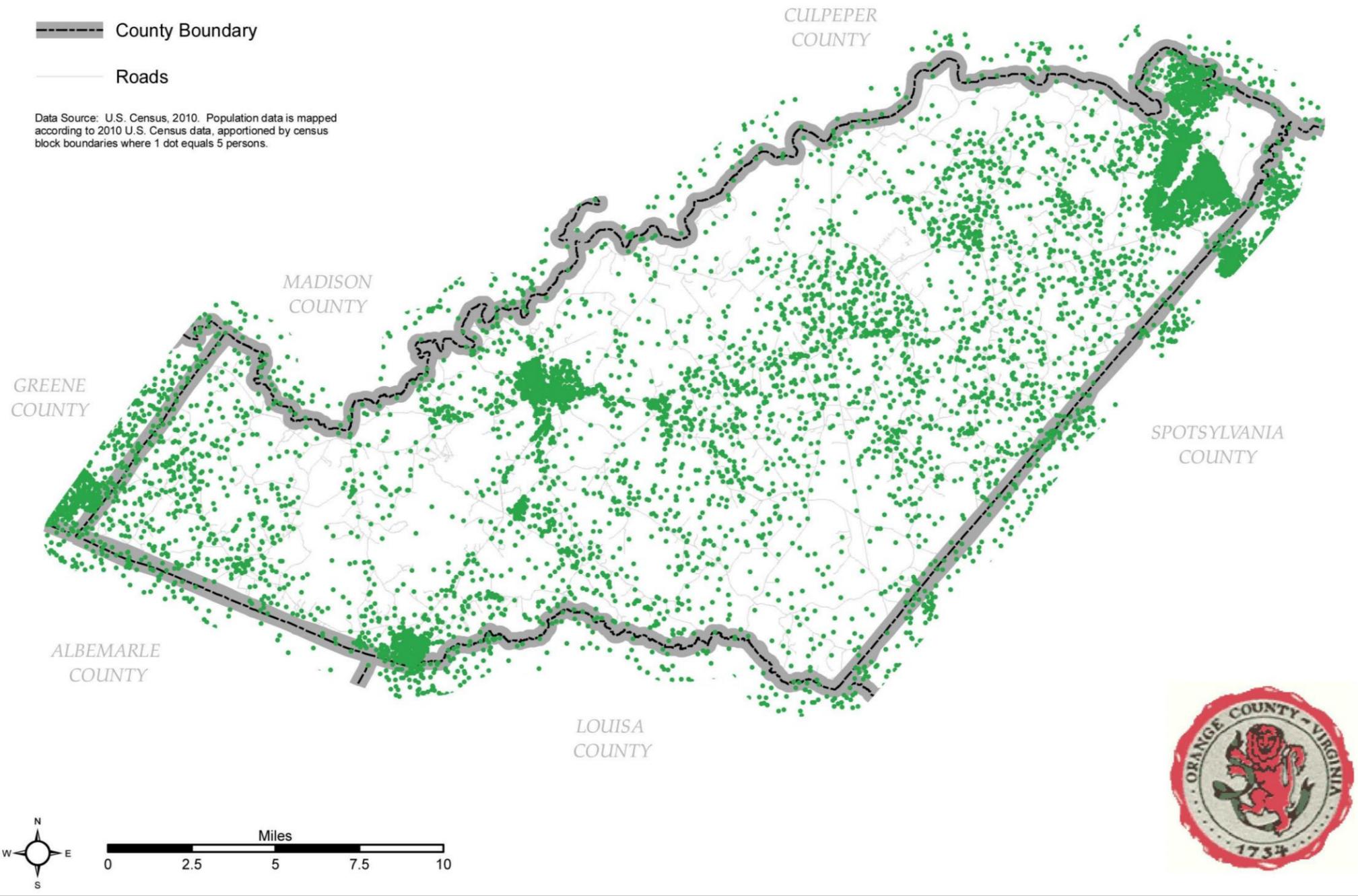
Population Density, 2010

• 1 Dot = 5

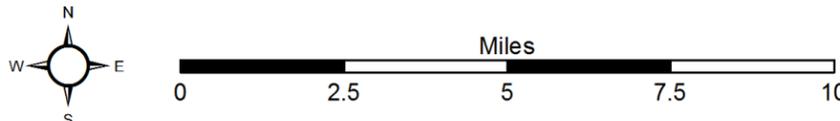
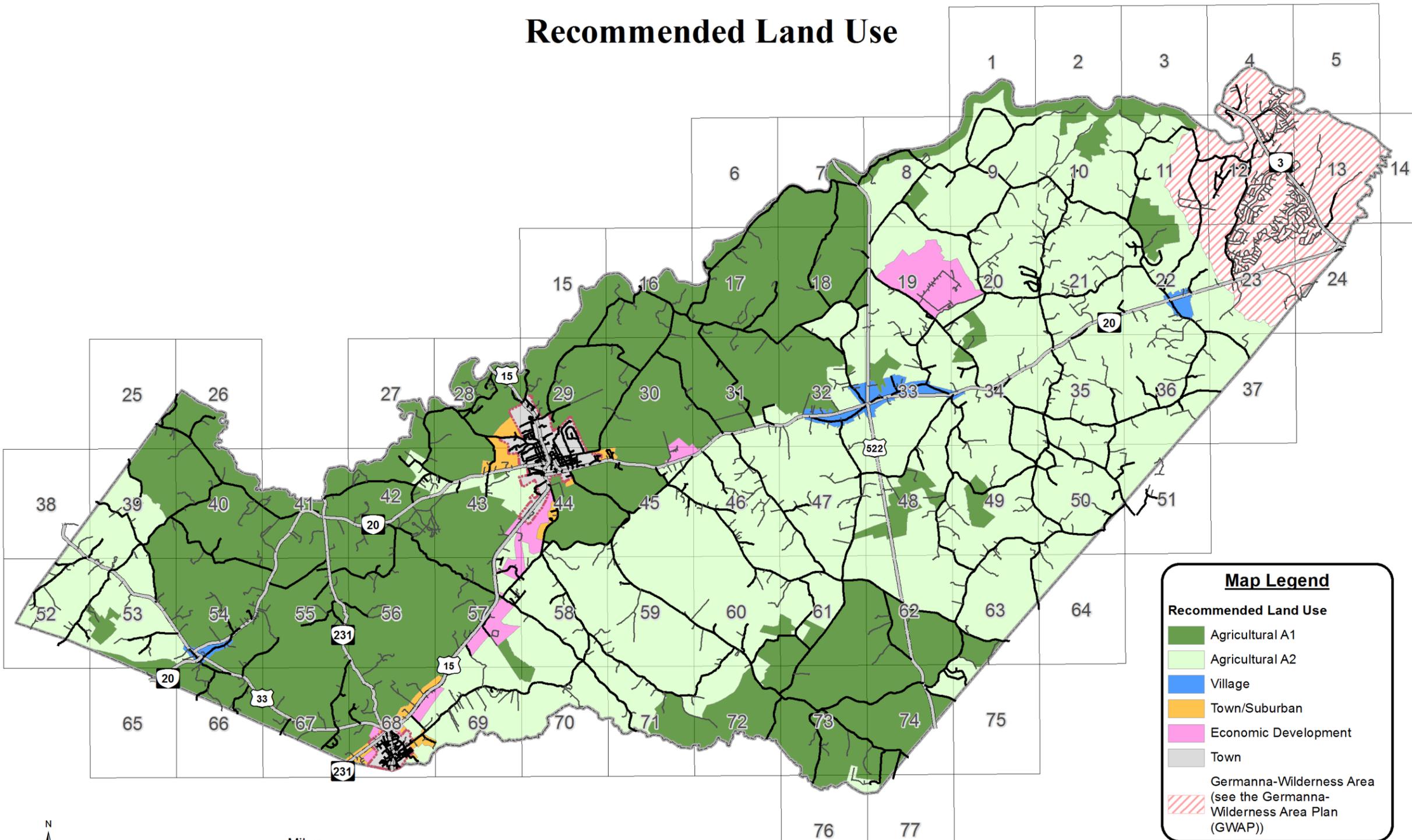
----- County Boundary

— Roads

Data Source: U.S. Census, 2010. Population data is mapped according to 2010 U.S. Census data, apportioned by census block boundaries where 1 dot equals 5 persons.



Recommended Land Use



Map Legend

Recommended Land Use

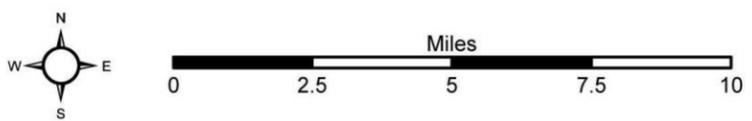
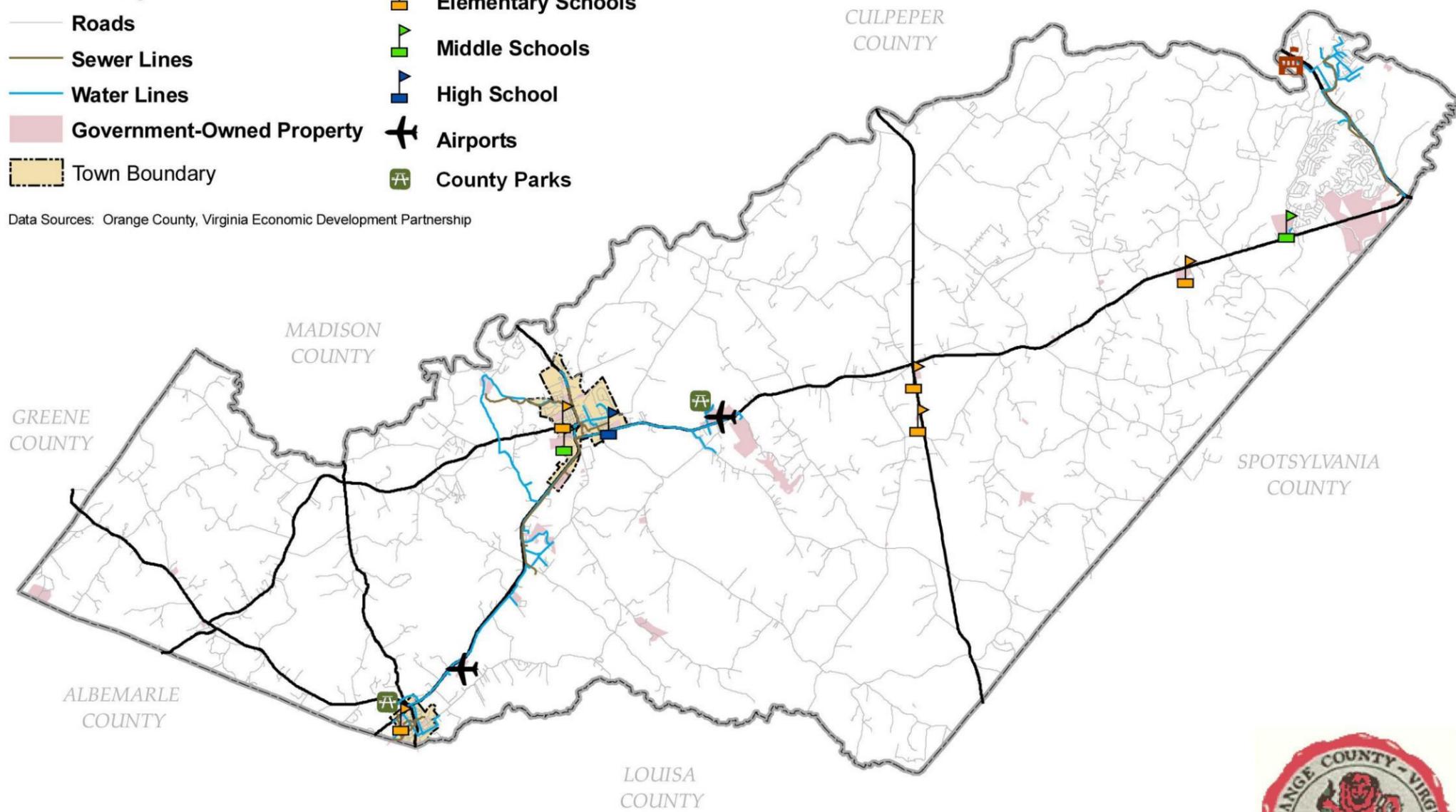
- Agricultural A1
- Agricultural A2
- Village
- Town/Suburban
- Economic Development
- Town
- Germanna-Wilderness Area
(see the Germanna-Wilderness Area Plan (GWAP))

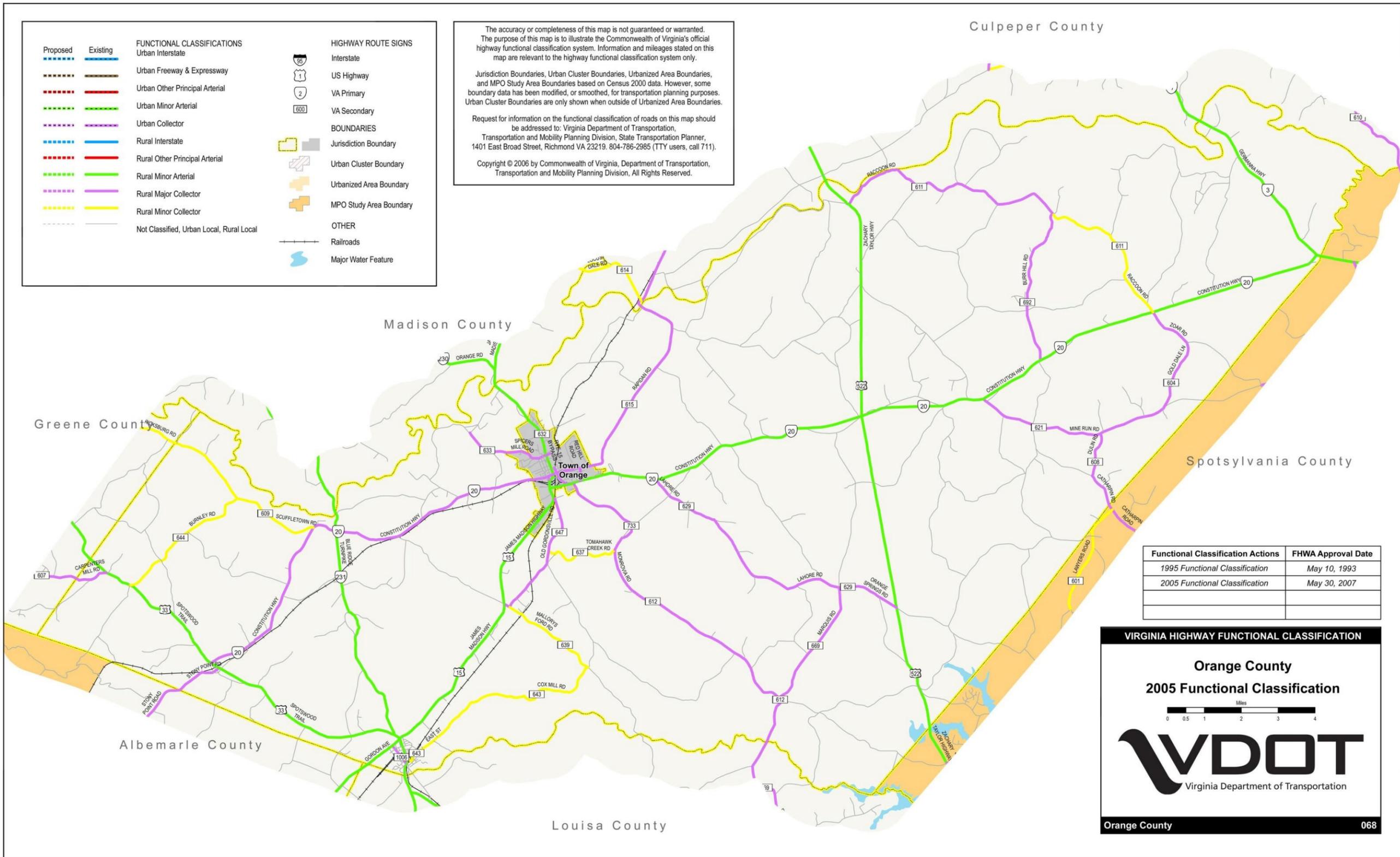
Adopted by the Board of Supervisors on December 17, 2013 and amended:
 June 10, 2014 - TM 57(1)B (Economic Development to Agricultural A2)
 July 14, 2015 - Adoption of the GWAP

County Infrastructure

-  County Boundary
-  Primary Roads
-  Roads
-  Sewer Lines
-  Water Lines
-  Government-Owned Property
-  Town Boundary
-  Germanna Community College
-  Elementary Schools
-  Middle Schools
-  High School
-  Airports
-  County Parks

Data Sources: Orange County, Virginia Economic Development Partnership



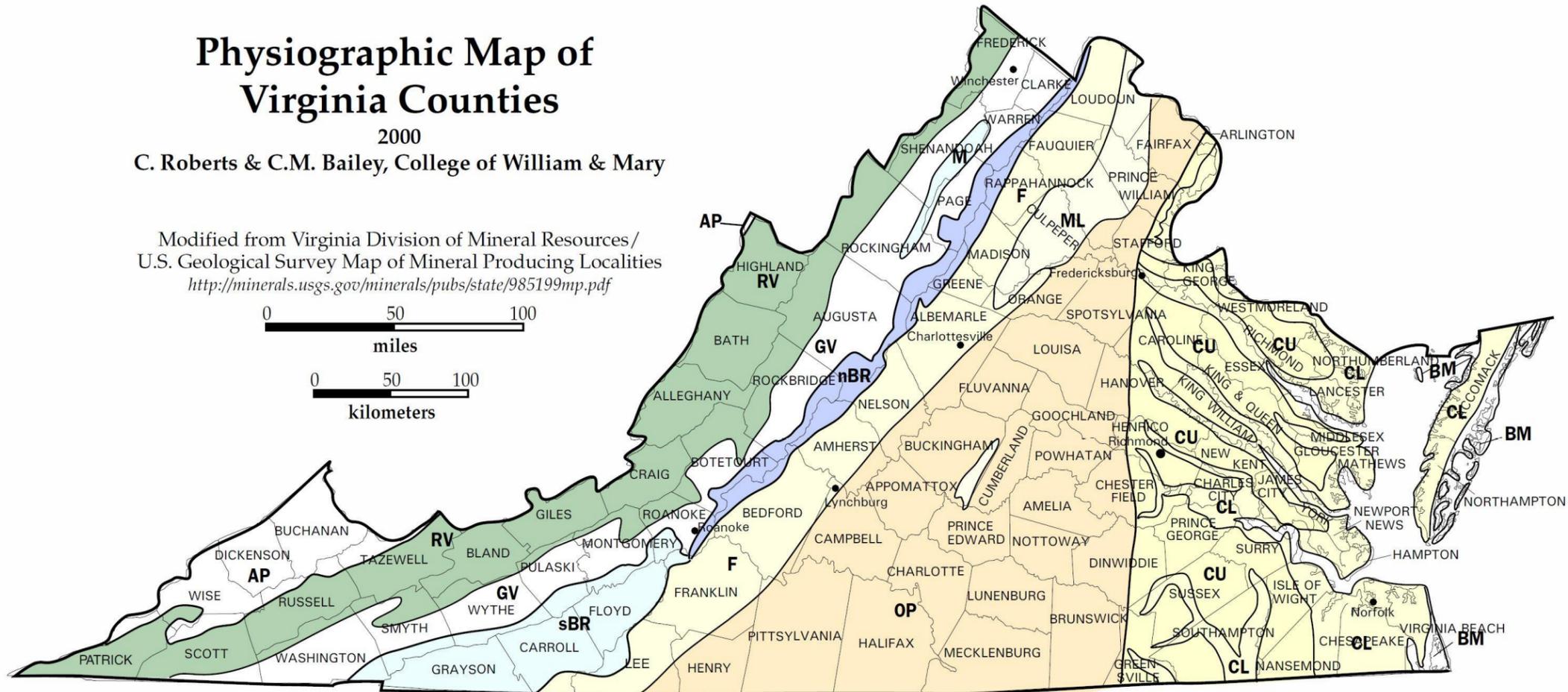
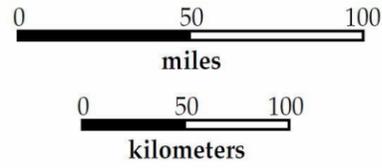


Physiographic Map of Virginia Counties

2000

C. Roberts & C.M. Bailey, College of William & Mary

Modified from Virginia Division of Mineral Resources /
U.S. Geological Survey Map of Mineral Producing Localities
<http://minerals.usgs.gov/minerals/pubs/state/985199mp.pdf>



Appalachian Plateau province

AP- Rugged, well-dissected landscape with dendritic drainage pattern. Elevation- 1000'-3000' with High Knob rising to over 4000'.

Valley & Ridge province

RV- Ridge & Valley subprovince: long linear ridges separated by linear valleys with trellis drainage pattern. Elevation- 1000'-4500'.

GV- Great Valley subprovince: broad valley with low to moderate slopes underlain by carbonate rocks. Elevation- 500'-1500' north of Roanoke, 1200'-2300' south of Roanoke

M- Massanutten Mountain: Series of long linear ridges that rise to 3000' above the Great Valley

Blue Ridge province

nBR- northern Blue Ridge subprovince: rugged region with steep slopes narrow ridges, broad mountains, and high relief. Elevation 1500'-4200'.

sBR- southern Blue Ridge subprovince: broad upland plateau with moderate slopes. Elevation 2400'- 3000' with higher peaks rising above upland, including 5729' Mt. Rogers.

Piedmont province

F- Foothills subprovince: region with broad rolling hills and moderate slopes. Elevation 400'-1000' with peaks rising to 1500'-2500'.

ML- Mesozoic lowlands subprovince: region with modest relief and low slopes underlain by Mesozoic sedimentary and igneous rocks. Elevation 200'-400'.

OP- Outer Piedmont subprovince: broad upland with low to moderate slopes. Elevation 600'-1000' in west gradually diminishing to 250'- 300' in east.

Coastal Plain province

CU- Upland subprovince: broad upland with low slopes and gentle drainage divides. Steep slopes develop where dissected by stream erosion. Elevation- 60'-250'.

CL- Lowland subprovince: flat, low-relief region along major rivers and near the Chesapeake Bay. Elevation- 0-60'.

BM- Barrier Islands & Salt Marshes: low, open areas covered with sediment and vegetation in direct proximity to the Chesapeake Bay and Atlantic Ocean. Elevation 0'-15'.

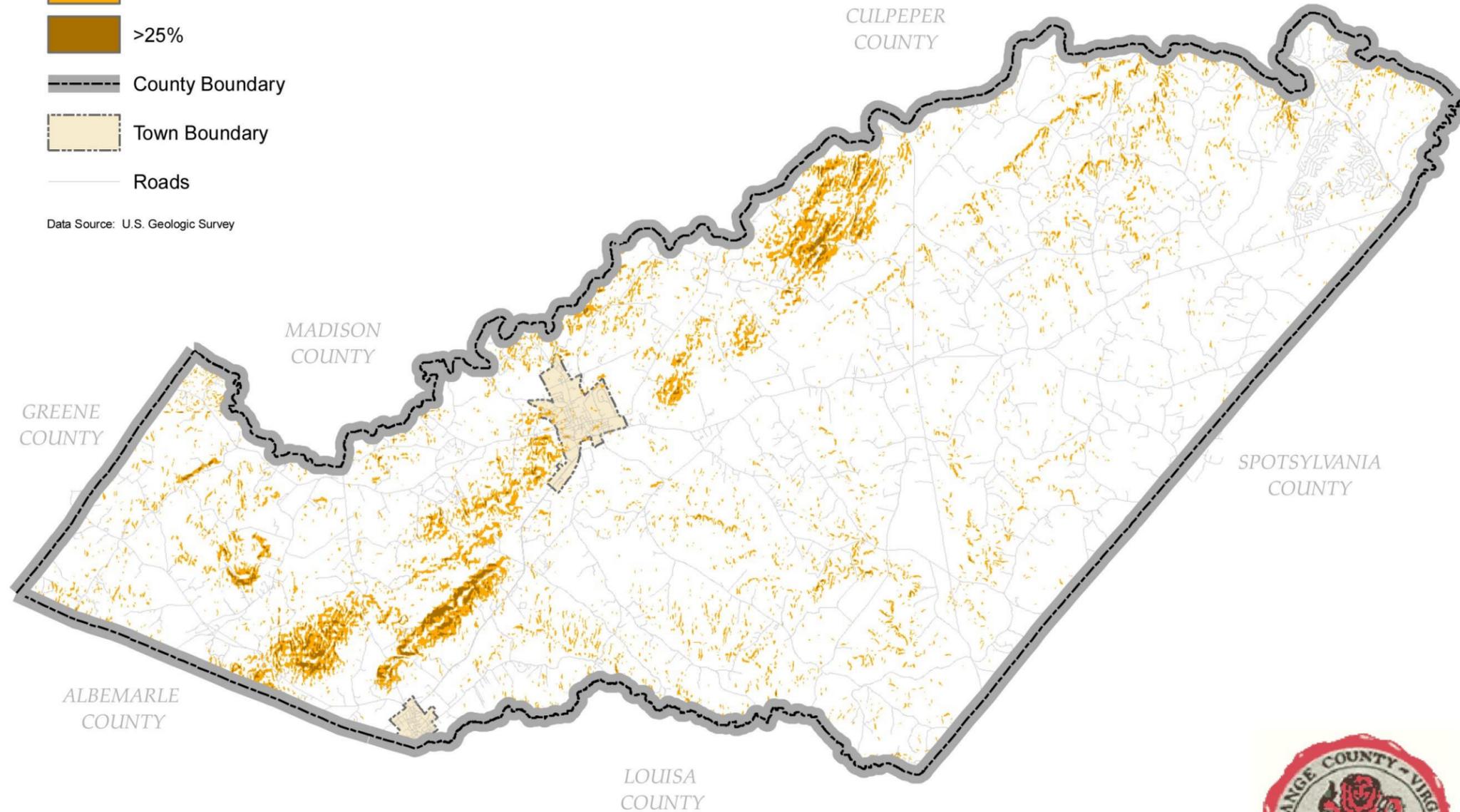


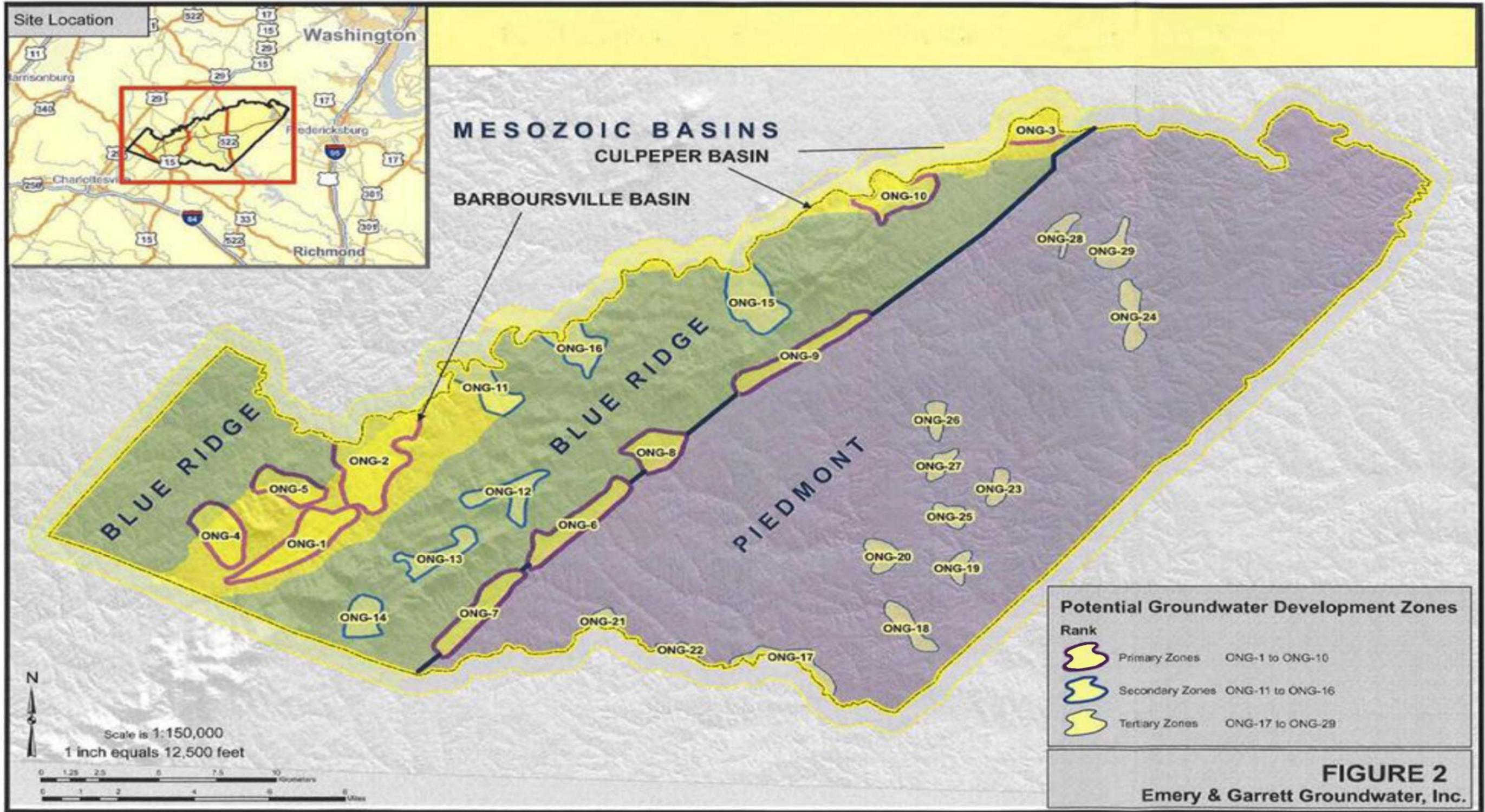
Steep Slopes

SLOPE

-  <15%
-  15% - 25%
-  >25%
-  County Boundary
-  Town Boundary
-  Roads

Data Source: U.S. Geologic Survey





Soil Associations

Moderately Permeable, Micaceous Soils

1: Elioak-Hazel-Glenelg-Watt

Clayey or Loamy Subsoil

2: Mayodan-Pinkston-Wadesboro

3: Bucks-Wadesboro-Penn

4: Rapidan-Bucks-Penn

Moderately Permeable, Medium Acid Soils

5: Fauquier-Catoctin-Myersville

Moderately Permeable Soils with Dark Red Clayey Soil

6: Rabun-Davidson-Rock Land-Basic

7: Davidson

Formed in Alluvium

8: Comus-Hiwassee-Elsinboro

9: Masada-Turbeville

10: Mixed Alluvial Land-Chewacla

Extremely Acid to Very Strongly Acid Soils with a Clayey or Loamy Subsoil

11: Nason-Tatum-Manteo

12: Tatum-Nason

Clayey or Loamy Subsoil, Derived from Mixed Acid and Basic Materials

13: Lloyd-Wilkes-Orange-Iredell

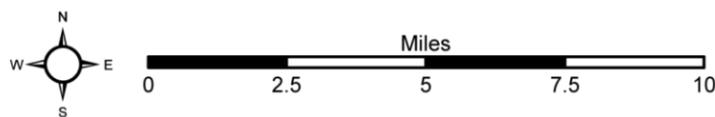
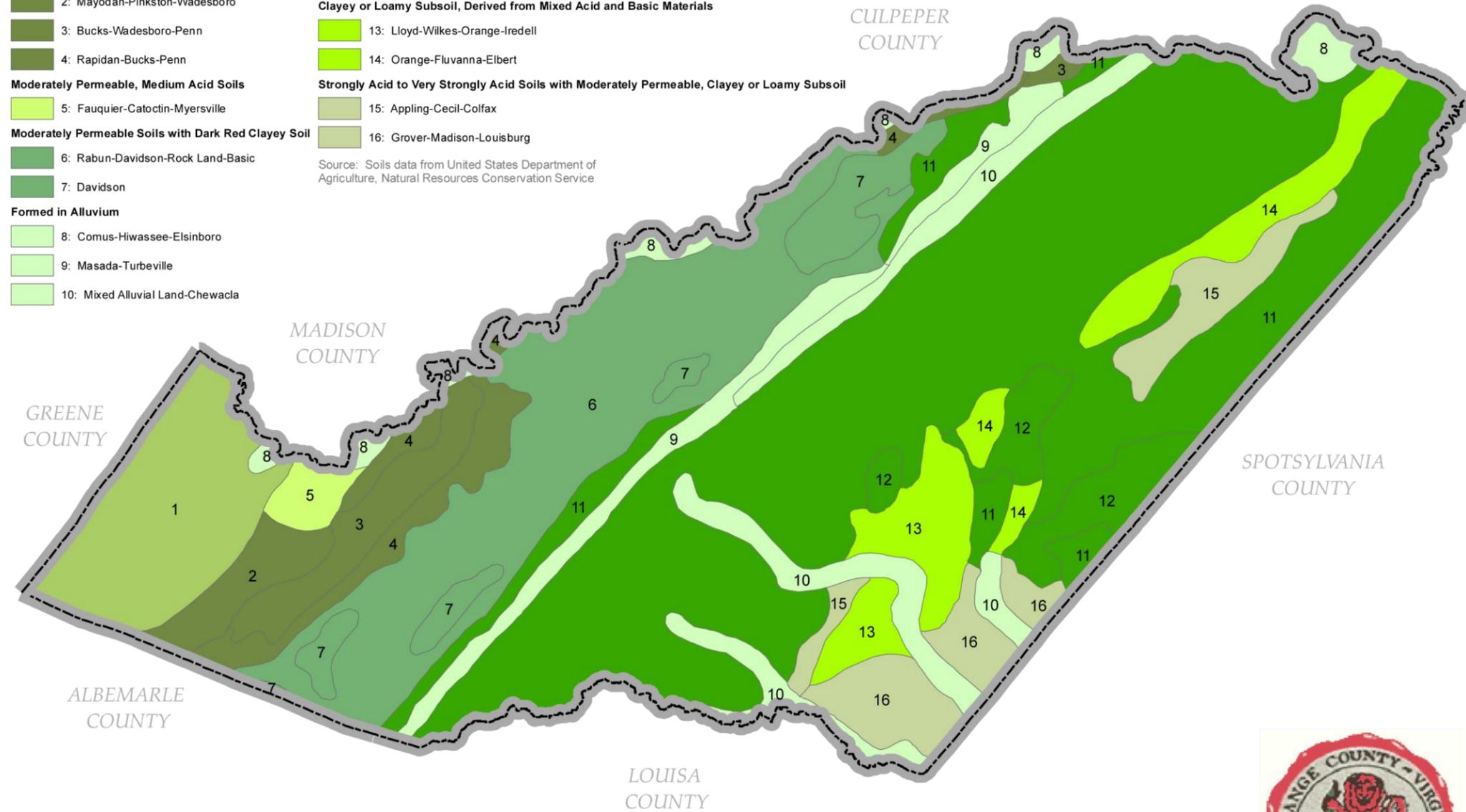
14: Orange-Fluvanna-Elbert

Strongly Acid to Very Strongly Acid Soils with Moderately Permeable, Clayey or Loamy Subsoil

15: Appling-Cecil-Colfax

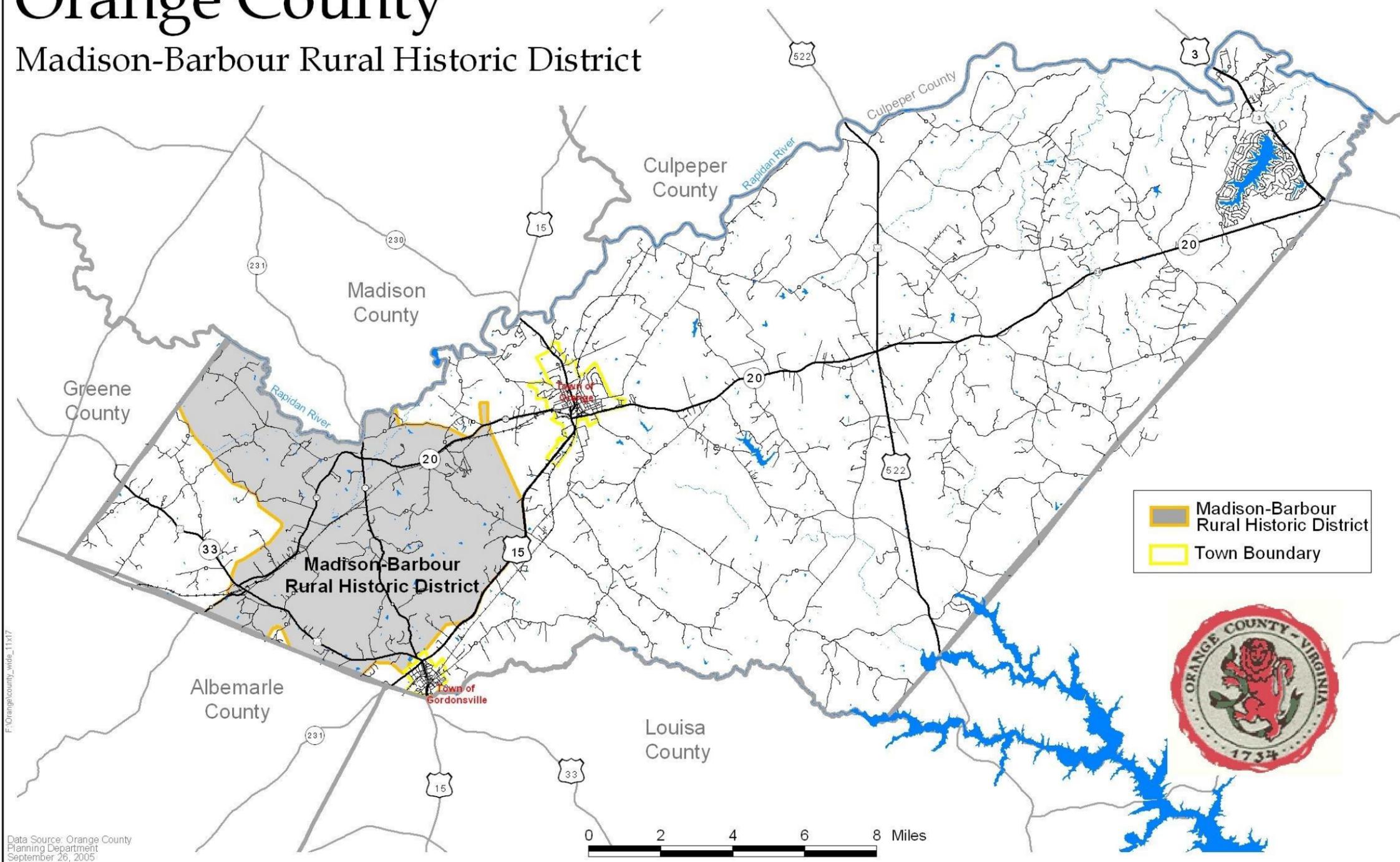
16: Grover-Madison-Louisburg

Source: Soils data from United States Department of Agriculture, Natural Resources Conservation Service



Orange County

Madison-Barbour Rural Historic District



Data Source: Orange County Planning Department
September 26, 2005