



## Chesterfield County 2023 Situation Analysis Report

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Figure 1: Map of Virginia highlighting Chesterfield County in red.

## Summary of community issues and Extension office response

Priority Issue	Planned Unit Response
Protecting Water Quality and Freshwater Resources	<p><b>Grass Roots</b> is a Healthy Virginia Lawns program in which a customized nutrient and turf management plan are created. This helps to keep excess nutrients out of waterways and the Chesapeake Bay.</p> <p><b>Learn Your Landscape</b> works with residents to provide resources to prepare them to achieve their landscaping goals. This includes sustainable conservation practices such as ways to increase water rendition and infiltration on the property, planting native plants, reducing lawn, promoting healthy soils and more.</p> <p><b>Healthy Land for Healthy Horses</b> short course provides information to equine pasture managers on conservation practices and manure management.</p>
Reducing misuse/overuse of pesticides and fertilizers	<p><b>Extension Master Gardener Help Desk and Plant Pathology lab</b> services offer diagnostic services and recommendations based on the current Pest Management Guide recommendations.</p> <p><b>Pesticide recertification events</b> are offered to commercial and private pesticide applicators. Attendees are given a review of pesticide application safety, updates on horticultural practices, and legal updates through VDACS.</p>
Preserving farm and forest land	<p><b>Small Acreage Forestry Management Program</b> will offer a range of services and resources to support forest owners.</p> <p><b>Farm Succession Planning</b> through consultation with the ANR agent and other VCE programs.</p>



## Introduction

Chesterfield County unit office conducted the 2023 Situation Analysis with support from Extension volunteers, local agencies, and key partners to gather information from a variety of resources and citizens to create an accurate reflection of the current needs in the county. The structure of the situation analysis community survey was finalized through discussion with staff. Existing county-wide sources of information were identified to utilize during this process. Together, the data from a variety of resources and the survey responses will be used to strategically plan future Chesterfield VCE programming based on issues and needs that exist at the local and, to some extent, regional levels.

Multiple departments and agencies within Chesterfield County supply resources that were used to compile this document: Chesterfield County Demand Indicators Report, Chesterfield County Planning Department, Chesterfield County Youth Planning and Development, Chesterfield Mental Health Prevention Services, Robert Wood Johnson Foundation County Health Rankings, Centers for Disease Control and Prevention (CDC) State Health Statistics, the United States Department of Agriculture, Virginia Department of Education, and the Virginia Department of Health.

## Unit Profile

Chesterfield County is in Central Virginia, just south of the capital city of Richmond. At a population of 370,688 it ranks as the fifth most populous locality in the state. It is the largest entity making up the Greater Richmond Metropolitan area, which also includes the City of Richmond, Hanover, and Henrico counties. On average, since 2018, the county has seen an annual growth rate of 1.5-2% and has experienced far greater growth in comparison to the national average (for the period of 2010-2020, Chesterfield's population showed twice the rate of growth at 15.3% in comparison to 7.17% for the country).

School aged children (5-19) are the highest percentage of the population at nearly 23%, but data also show a steady increase in people 65 and older. By 2030 it is expected that these two age groups will represent the largest percentages of the population. Capacity for this growth - particularly the impact on resources for schools, housing, assisted living facilities, and other services - is consistently a focal point for government officials and citizens alike. Currently 64 school facilities service a student population of over 62,000. The county also has a system of 10 public libraries and 58 parks or recreational facilities.

Chesterfield's 423 square miles is a mixture of rural and suburban land with areas of increasingly dense population. Escalating growth and development continue to encroach on existing rural areas, which have resulted in a smaller number of farms, decreased acreage under cultivation, and ongoing conflicts over land use and subdivision development.

Student enrollment in Chesterfield County schools has mirrored the escalating development with increasing growth over the past decade. There are currently more than 64,000 students in a network of 41 elementary schools, 12 middle schools, 12 high schools, 2 technical schools, two virtual/online options, and the regional Maggie Walker Governor's School. The homeschool population in Chesterfield also continues to grow.

2021 Population: 67% white, 23.4% Black, 9.5% Hispanic, 5.9% other, 3.7% Asian, 2.6% two or more races, 0.33% American Indian, 0.07% Pacific Islander

Mean Household Income: \$107,865. Slightly higher than state average, about \$20k higher than the national average.

2017 data: 210 farms, average farm size 86 acres, much smaller than state/national averages. Very little poultry/livestock use - majority corn for grain & small amount of wheat for grain.

## Community and Resident Perspectives

Chesterfield Extension's community needs assessment was distributed through two main channels identified as high-volume, diverse audiences. iPads were used for 4 consecutive weeks at the Chesterfield County Farmers Market which averages 2,500 visitors per week and a broad demographic of the population. Additionally, Chesterfield Extension is a division within the county's Parks and Recreation Department which has an advisory committee consisting of citizens representative of various geographic areas and serves as a liaison between the public, the Board of Supervisors, and County Administration. The Parks and Recreation Advisory Commission (PRAC) is like an ELC, but in many ways more diverse and not necessarily linked to Extension other than its relationship to PRAC. The Recreation Manager presented our Situation Analysis project and survey to members of PRAC in an August meeting to encourage broader dissemination of the survey to citizens not directly linked to Extension who could give input on programming and long-range planning. The assessment was also emailed out to subscribers (n=2,877) of Chesterfield Extension's monthly newsletter and shared to the producers & nonproducers who receive the Chesterfield Farm Bureau newsletter.

The data from this community survey, along with reports from county government agencies and organizations, helped to determine which issues will receive our time, energy, and resources to best address the needs of our county. While many different perspectives and priorities were ranked, in the end three major issues surfaced to the top of Chesterfield citizens we involved in this process. In a comparison to the VCE Statewide Situation Analysis report, the issues most often identified as urgent are quite like those of Chesterfield County. There is a particular focus on environmental and agricultural concerns, many of which are similar trends from previous situation analyses and in our continual evaluation of programming needs locally. While Extension currently offers numerous programming options that address many of the identified issues, we also recognize most of these topics require a multidisciplinary effort from Chesterfield VCE staff to address these complicated and layered issues. VCE may play a major role in some aspects of these issues, while in other aspects there is a need to rely on or partner with additional agencies in and around the county to support a larger community effort.

## Community Issues

The top five issues identified through Chesterfield Extension's community needs assessment are (in order); Protecting water quality, protecting freshwater resources, reducing misuse/overuse of pesticides and fertilizers, protecting air quality, and preserving farm and forest land.

Not only do these issues align closely with the top ten identified statewide, but also in reading the comments of the 179 respondents, there is a common denominator fueling the issues listed that tie to an overall concern about community growth and the development of the county. This was the number one priority issue from the 2018 Situation Analysis, and the central concern of how the increasing rate of population growth might negatively impact local resources. The identification of multiple issues concerning the environmental impact of overcrowding is not surprising in this 2023 analysis, given this has been an ongoing topic of concern for many who reside in Chesterfield.

When revisiting the issue of continuous and rapid population growth in Chesterfield County, it helps explain the connection to the issues of concern highlighted in this report. The continual influx of people has certainly put a strain on the county's ability to meet the needs of the population in terms of infrastructure, resources, and basic services for its residents. Over time many of the strains on the environment have now come to the forefront, which also aligns with a greater focus globally on negative impacts concerning air & water quality, limited resources, a need for more renewable energy, and greater overall awareness of the public.

The concern about development and growth particularly centers around protection of the Chesapeake Bay watershed. How growth contributes to pollution is a huge concern at the county and state level. The water quality issues in Virginia are unique and the impacts far-reaching from development and agriculture. Sustainable agriculture and maintaining the quality of farmland still available also ties into this issue, as locally sourced food becomes more in demand within the Richmond Metro area.

While the underlying issue of development falls under county leadership and the community planning commission, Extension does still have a supportive role to play in terms of protecting resources and programs that can help prevent negative impacts of development. Some of the environmental concerns are currently being addressed by the extension Environmental Educator, Master Gardener Coordinator, the 4-H Program Technician and Master Gardener volunteers. Grassroots is Chesterfield's signature program and has helped more than 5,000 residents adopt better lawn care practices to protect our watershed from excess fertilizers and pesticides. Our office also offers a Sustainable Landscaping program to promote the use of native plants, soils, and the climate to minimize the impact on local watersheds.

The Environmental Educator is a certified urban nutrient management planner and helps citizens with specialized plans to manage the proper application of fertilizers and biosolids which help address erosion and sediment control. The Chesterfield 4-H Program Technician and Master Gardeners have numerous collaborations with schools and youth organizations that provide agricultural and environmental education programs.

The Planning Commission continues to develop an update to its Comprehensive Plan for Chesterfield County, initially adopted in 2012, the plan is designed to address many of the issues and challenges facing the county as it continues to grow and evolve. Public hearings were offered to gain citizen input on the draft of this document, and hearings continue to be held as new development and changes are considered. This department and the plan itself outline specifics about economic development, housing, public facilities, transportation, and any other issues that we also received feedback on while conducting our assessment. The county also created a Chesterfield County Demand Indicators Report published online (see appendices) which tracks growth and helps keep the community informed.

## **Future Programming to Address Community Issues**

### **Recent and planned programs to further address priority issues**

Issue number five concerns the preservation of farm and forest land. Many of these concerns come from the pressure of development in Chesterfield County. Another factor is the age of many of the producers in the county. According to the 2017 Census of Agriculture 28% of producers in the county are 65 years or older. Preserving this land through succession to the next generation is important. The ANR Agent recently went through training and has succeeded in becoming a Certified Farm Succession Planner. With this training the agent will better be able to assist the producers in Chesterfield with preserving their farmland.

The Healthy Land for Healthy Horses short course provides information to equine pasture managers on conservation practices and manure management. This program was offered in Chesterfield County in 2021 in collaboration with Hanover, Henrico, and the James River Soil and Water Conservation District. A guest equine specialist from the University of Kentucky spoke on pasture management and addressed questions from local farmers. A site visit finished up the day at a local equine boarding operation to show many of the conservation practices at work. The ANR agent will be collaborating with Hanover to have this short course again in Spring of 2024.

Future programming on pesticide education includes a registered technician recertification held by Chesterfield Extension for Chesterfield government employees. The ANR agent will also be working with Hanover and Westmoreland County to have a commercial pesticide certification training.

We recognize the critical importance of proactive and sustainable forest stewardship and preservation. Forests, as invaluable ecosystems, serve as the lungs of our planet, providing clean air, biodiversity, and essential resources. Our future Small Acreage Forestry Management Program will offer a range of services and resources to support forest owners in meeting their specific needs. Whether the goal is to attract specific wildlife, develop trails for recreation, or simply cultivate a healthy and happy forested area, our program is committed to delivering personalized and sustainable solutions. Key features of the Small Acreage Forestry Management Program include:

**Customized Management Plans:** Forest owners will have the opportunity to work with our team of experts to develop personalized forest management plans. These plans will consider the unique characteristics of each small acreage, addressing the owner's goals, whether they involve wildlife habitat enhancement, trail development, or overall ecosystem health and forest protection.

**Wildlife Habitat Enhancement:** For those seeking to attract specific animals or promote biodiversity, our program will offer strategies for creating and maintaining wildlife-friendly habitats. This includes guidance on plant selection, habitat structures, and sustainable practices to support a diverse range of flora and fauna.

**Recreational Trail Design:** Recognizing the importance of recreation in forested areas, the program will provide expertise in designing and implementing trails that enhance the accessibility and enjoyment of the forest. This includes considerations for sustainability, environmental impact, and user safety.

**Educational Workshops and Resources:** To empower forest owners with knowledge, the program will offer educational workshops and resources covering various aspects of small acreage forestry management. These resources aim to equip owners with the skills needed to sustainably manage their forested lands.

## **What is beyond our scope and being addressed by partner organizations**

While our programs may not explicitly target air quality protection, they play a crucial role in safeguarding greenspaces. As a consequential benefit, our initiatives contribute to the passive protection of air quality.

One of our long-time partners, the James River Soil and Water Conservation District works with us in many programs such as the Farmers Breakfast Pesticide Recertification, Healthy Land for Healthy Horses program, and training Extension Master Gardeners. They are also a valuable resource to collaborate with on farm visits. They can provide cost share assistance for conservation practices that address water quality, protect freshwater resources, reduce misuse/overuse of pesticides and fertilizers, and protect farm and forest land. Farmers can utilize programs within the Virginia Agricultural Cost-Share Program (VACS). This can help with nutrient management planning, cover crops, and split fertilizer applications. The Virginia Conservation Assistance Program (VCAP) is meant to assist homeowners in managing stormwater and conserving valuable water resources on their property.

Programs through other state organizations help to address our water resources. The Department of Wildlife resources has resources on pond

management including a list of professionals. The local land grant university, Virginia State University offers programs on aquaculture and pond management. The specialists there are valuable resources to train and provide information to agents.

# References

Chesterfield County Demand Indicators Report: <https://www.chesterfield.gov/5003/Data-Reports>

Robert Wood Johnson Foundation (RWJF) County Health Outcomes Ranking:  
<https://www.countyhealthrankings.org/>

Virginia Division for Health Statistics: [VDH, Division of Health Statistics \(virginia.gov\)](http://www.vdh.virginia.gov)

2017 Census of Agriculture: [Chesterfield County Profile](http://www.census.gov)

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