



Northumberland County 2023 Situation Analysis Report

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Figure 1. Two Daughters Pumpkin Patch. (Tara Brent, Virginia Cooperative Extension)

Table 1. Summary of Northumberland County priority community issues and VCE response.

Priority Issue	VCE planned response
Agricultural Sustainability / Preservation of Farm and Forest Land	Provide education, training, and consultation to agricultural producers to increase production efficiency and profitability with the goal of on-farm longevity.
Protecting Water Quality / Protecting the coastal environment	The Shoreline Evaluation Program is an educational outreach effort designed to provide property owners with recommendations for improving upland stormwater management, pollutant and sediment runoff, and shoreline erosion.
Access to Safe and Nutritious Foods	Education and training in healthy food choices, growing foods at home, and managing personal finance to allow for adequate food spending.
Helping Youth Develop Leadership, Citizenship, and other Life Skills	Increase the amount and scope of 4-H positive youth development programs offered in various delivery modes throughout the county.

Introduction

The situation analysis for Northumberland County was completed in 2023, as part of the five-year needs assessment cycle dictated by Virginia Cooperative Extension at a state level. The process was conducted by unit extension faculty. An electronic community survey was distributed as the main method of gathering input. It was promoted on the unit Facebook page, as well as other community Facebook pages and groups. It was distributed to the unit 4-H email listserv, via email to agricultural producers and stakeholders, as well as community partners.

Unit faculty used other resources to inform the situation analysis including the VCE unit profile, Census of Agriculture, VCE Data Science for the Public Good project, Virginia Labor Market Information from the Virginia Employment Commission, and the VCE Data Commons.

Unit Profile

Northumberland County is located eastern Virginia at the northeastern tip of the Northern Neck peninsula. The county is 223 square miles, bounded on the north by the Potomac River and on the east by the Chesapeake Bay, with 556 miles of shoreline. Northumberland County is positioned halfway between the Washington, D.C. and Hampton Roads metropolitan areas. The county is located 70 miles northeast of Richmond and 112 miles southeast of Washington, D.C. The port of Hampton Roads is 94 miles south.

Based on census data, the population of Northumberland County continues to decrease, by approximately two percent every two years. The 2021 population was 11,965. The percent of the population 19 years of age and younger has increased slightly to 17.5%. The majority of residents (60%) of the county are age 50 and older. The Hispanic population has increased 345% since 2019, with this ethnic group making up 4% of the total unit population. There has been an 8% decrease in the number of households in Northumberland County since 2019. The population churning index, which is a measure of the amount of population turnover, is a 5, the highest level.

There has been a 12% increase in the adult obesity rate between 2021 and 2023. 12% of the population reports that they are in poor physical health with 11% of adults having diabetes. 8.7% of households receive SNAP benefits. The estimate of the percentage of people in the county who are food insecure is 14%. 22% of the population reports that they are physically inactive. 11% of the population is uninsured.

The unemployment rate is 4%, one percentage point higher than the state rate. 66% of the working population continues to commute outside of the county for work. The largest employers are those in local government, retail, and manufacturing. 19% of households do not have internet access. The median household income is \$60,575.

Based on the 2017 ag census, there has been a 37% increase in the number of farms in Northumberland County to 134. However, the median farm size has decreased significantly from 116 acres to 37 acres, and the total acres of land in farms in the county has only risen slightly. This shows a move toward more small farms.

34% of children in the county live in single parent households, a 14% increase in just two years. 25% of youth live in poverty, which is 13 percentage points higher than the state average.

Currently there is only 1 full service grocery store in the county. In the last five years, the number of dollar stores (Family Dollar, Dollar General, Dollar Tree) in Northumberland County has increased from 3 to 7. These are shopped at in place of a grocery store because of their proximity. The majority of households are geographically closer to a dollar store than to a fire department or rescue squad facility. Only one of these stores has fresh produce.

Community and Resident Perspectives

Table 2. Top community issues based on survey results by Northumberland County residents.

Top Issues
Helping youth develop leadership, citizenship, and other life skills
Preserving farm and forest land
Protecting water quality
Protecting air quality
Strengthening the local food system
Ensuring safe, high quality foods
Protecting the coastal environment
Assisting forest landowners with sustainable management practices
Promoting agricultural, natural resources, and environmental literacy
Youth and adult financial education

Comparing the state level results with the results from Northumberland County residents, there are some similarities. Four of the top ten issues were also priority issues at the state level: protecting water quality, protecting air quality, ensuring safe, high quality foods, and strengthening the local food system. One key difference is that county residents ranked protecting the coastal environment high. With its proximity to several rivers and the Chesapeake Bay, this priority issue makes sense.

Community Issues

The unit faculty reviewed the data from the community survey results and the unit profile. Four priority issues were identified as those that VCE could best address using an interdisciplinary approach.

Issue 1 – Agricultural Sustainability / Preservation of Farm and Forest Land

Through countywide survey results, the preservation of farm and forest land was identified as one of the highest-ranking agricultural issues in Northumberland County. The 2017 Census of Agriculture reported that at that time there were 134 farms operating on 43,480 acres within the county. 78% of the land was reported to be in cropland with an additional 12% in wooded forest acres. When compared to the Northumberland County Census of Agriculture conducted in 2012 there was a 37% increase in number of farms but no statistically different change in the amount of agricultural land in production over the five-year period. Though the amount of farmland within the county has remained consistent and agricultural production remains one of the county's most productive industries, there remain concerns around alternative land uses on productive agricultural and wooded acres within the county. In order to maintain the acres of farm and forest land within Northumberland County, agricultural producers must remain profitable enough through agricultural production and forest management to outweigh considerations of alternative land uses. On-farm profitability can be maintained and improved through the adoption of sustainable management practices, efficient production techniques and strategic marketing.

Issue 2 – Protecting Water Quality / Protecting the Coastal Environment

Respondents to a countywide survey indicated in the results, that protecting water quality and the coastal environment is one of the most pressing issues currently faced in Northumberland County. Northumberland County is bordered to the east by the Chesapeake Bay and to the north by the Potomac River, and their tributaries. According to the Virginia Institute of Marine Science these bodies of water accumulate 509 miles of shoreline within the county, most of which lies on private property. It is the responsibility of landowners with waterfront property to manage their shorelines in a manner that promotes stability and prevents runoff and erosion that lead to water quality issues. Many residents of Northumberland County who own waterfront property are retirees from non-riparian areas, and are not familiar with the unique challenges associated with appropriate shoreline management. Shorelines are dynamic and can be affected by the features of the nearby landscape such as areas of pavement and even invasive species. Without careful planning and maintenance, shorelines can erode, which poses a potential threat to inland properties and structures, as well as the bodies of water they encompass.

Issue 3- Access to Safe and Nutritious Foods

Chronic disease and health risk factors plague Northumberland County and affect all ages, races, and income levels. The county's risk factors (obesity, diabetes) are all higher than the state averages due to factors including the high concentration of residents aged 65 and older, high percentage of residents living below the poverty level, lack of transportation to healthcare facilities which are also not accessible within the immediate area, and lack of healthy food options. Another factor contributing to this is the high rate of free and reduced lunch eligible youth in the public schools. Residents have had increased interest in learning how to procure, prepare, and preserve safe and nutritious foods. The combined interest and need make this an issue of high importance within the community.

Issue 4- Helping Youth Develop Leadership, Citizenship, and other Life Skills

A need exists to develop and implement programs for youth that promote positive youth development, helping them grow into successful adults. The rate of youth living in poverty and the number of single parent households in Northumberland County is higher than the state average. The majority of working adults commute outside of the county for work. These factors may contribute to a lower rate of parental involvement, and a need for positive

role models for youth. Since the COVID pandemic, public schools are focusing heavily on academics to counteract learning loss due to school closures. Because of this, teachers do not have the time to focus on life skills in their instruction. It is difficult for many youth to be involved in outside organizations that are not connected to school, because of lack of transportation with parents/guardians working and no public transportation in the county.

Future Programming to Address Community Issues

Issue 1 – Agricultural Sustainability / Preservation of Farm and Forest Land

Agriculture and Natural Resources (ANR) Extension Agents of the Northern Neck work as a team to provide education, training, and consultation to agricultural producers in an effort to increase production efficiency and profitability with the goal of on-farm longevity. ANR Agents host annual Crops Conferences, Vegetable Meetings, and field days at which producers are presented information and research on new production practices, products, equipment, and technology, efficient management options, and commodity marketing strategies. Agents also offer individual assistance to producers with support from university specialists at Virginia Tech and Virginia State University, utilizing on campus diagnostic laboratories to address on-farm needs. ANR Agents aid in identifying alternative crops that may provide farmers the opportunity to obtain premium returns for their product, as well as spread risk by diversifying their cropping system. Outside of assistance with on-farm production, agents work with landowners through programs such as GenerationNext to assist with the transition of agricultural and forest lands to following generations to ensure these lands remain in production. Through cooperation with partners like the Northern Neck Land Conservancy VCE educates landowners on the process of placing land into conservation easements that would ensure that land would remain in agricultural production. Finally, agents work to strengthen relationships between farmers and residents of the county through educational programming with the goal of establishing a positive perception of agriculture within the community.

Issue 2 – Protecting Water Quality / Protecting the Coastal Environment

The Northern Neck Master Gardeners, a volunteer organization that operates through Virginia Cooperative Extension, working closely with partners at the Virginia Institute of Marine Science and county governments, have built the Shoreline Evaluation Program. The program is an educational outreach effort designed to provide property owners with recommendations for improving upland stormwater management, pollutant and sediment runoff, and shoreline erosion. The Shoreline Evaluation Program provides both traditional education on shoreline management through public seminars, as well as private shoreline consultations to waterfront property owners. Through shoreline consultations, volunteers evaluate the current health of shorelines and provide property owners with personalized property reports that address individual, unique needs of each property they evaluate. The Shoreline Evaluation Program has also developed a publication titled “Homeowners Guide to Shoreline Management”, a detailed shoreline management resource used along with evaluation reports to remediate shoreline issues and improve shoreline health. To date the shoreline Evaluation program has completed approximately 230 evaluation reports, with additional evaluations and reports completed annually.

Issue 3- Access to Safe and Nutritious Foods

Northumberland Extension Agents in both Family and Consumer Sciences and 4-H Youth Development have teamed to provide education and training in healthy food choices, growing foods at home, and managing personal finance to allow for adequate food spending. Youth education taught within the schools includes nutritional programs such as Teen Cuisine, agricultural programs such as Ag in the Classroom, and financial literacy such as Kids Marketplace and Reality Store. Adult programming is being developed to offer Chronic Disease Self-Management, Balanced Living with Diabetes, Home Food Preservation, and Personal Financial Literacy. Empowering youth and adults to have better access to healthy foods and know how to preserve them allows the community to reduce chronic disease and have better health outcomes.

Issue 4- Helping Youth Develop Leadership, Citizenship, and other Life Skills

The 4-H youth development agent will increase the amount and scope of 4-H programs throughout the county. This will include in-school enrichment programs, which provide the opportunity for all youth in a specific grade level to be a part of 4-H. This has proven to be the best delivery mode to provide the initial experience for 4-H members. Partnerships with community organizations, such as the Boys and Girls Club of the Northern Neck and the Northumberland YMCA will provide local youth with opportunities to be a part of a positive youth development environment where life skills can grow. Increased promotion of 4-H junior camp will occur, with an emphasis on scholarship opportunities to ensure all youth are provided an opportunity to attend, regardless of ability to pay. Leadership opportunities in 4-H will be promoted with members.

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