



Northampton County 2023 Situation Analysis Report

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Summary of community issues and Extension office response

Priority Issue	Planned Unit Response
Ensure safe, high quality foods	<ul style="list-style-type: none"> - focus on small farm educational programs to support new farmers and ensure the continued success of local farms that are currently in production - develop training opportunities for farm related food safety certifications - develop educational opportunities for Northampton County farms to obtain OMRI certification - work with local farm stands to encourage taking EBT cards at the stands - work with local farmers to establish pop up markets in more areas of the county
Helping youth develop leadership, citizenship, and other life skills	<ul style="list-style-type: none"> - 4-H clubs provide leadership opportunities for youth - Teens trained to serve as camp counselors - Partner with local organizations to offer programs geared toward school aged youth
Ensuring safe food handling practice to prevent foodborne illness	<ul style="list-style-type: none"> - survey the need for GAP, GMP and BAP certification with large, small production agriculture and aquaculture and provide certification training and support to growers. - provide farmers' markets educational resources for safe produce handling. - provide educational programs and resources for obtaining safe food handling certifications.
Promoting scientific literacy among youth	<ul style="list-style-type: none"> - 4-H agent is partnering with local agencies to bring back a regional science fair - Agents will work with local schools to conduct hands on science experiments - 4-H agent will continue with STEM programming in all the schools
Promoting agricultural, natural resources, and environmental literacy	<ul style="list-style-type: none"> - provide supplemental "hands-on" learning experiences in the areas of agriculture and natural resources in grades K-12. - partner with other youth serving agencies and community groups to provide Ag education and life skills to youth. - continue established programs such as the Eastern Shore Agricultural Fair and the Northampton Farm Tour Day, expanding agricultural literacy and hands-on experiences.

Introduction

The Northampton County Extension office conducted a comprehensive situation analysis during the 2023 calendar year. The situation analysis process was led by Northampton County Extension staff who sought input from local stakeholders. It involved the development of a Northampton County Unit Profile as well as gathering community and resident perspectives on issues and problems in the county. Data and information from these two activities were analyzed and priority issues were identified. The surveys were handed out at local meetings, posted on social media, and sent to numerous list serves to solicit responses from Northampton County citizens. Using the data sets from the VCE Situation Analysis Resource Website, VCE staff was organized to analyze assigned pieces of the data set. From that data, the unit profile was developed.

Unit Profile

The County of Northampton Virginia is the southern most of the two Virginia counties on the Delmarva Peninsula, commonly referred to as the “Eastern Shore”. The county is comprised of a total 211.61 square miles, and is bordered to the north by Accomack County Virginia. Bodies of water border the other three sides of Northampton County - to the east the Atlantic Ocean, to the west the Chesapeake Bay and the south is where the Chesapeake Bay and Atlantic Ocean meet. Northampton County is connected to the Virginia mainland of Virginia Beach by the 17-mile long Chesapeake Bay Bridge -Tunnel. Northampton County consists of many rural villages surrounded by large agricultural tracts, as well as five incorporated towns: Exmore, Nassawadox, Eastville, Cheriton, and Cape Charles.

Topography in Northampton County is generally flat, and the highest point in the county is a little more than 50 feet above sea level. Soils mainly consist of 8 to 10 inches of sandy loam above 30 inches of sandy clay and shell strata. Groundwater is the source of potable water. The county enjoys a mild climate in growing zone 7b – 8a, with four distinct seasons.

The “seaside” of Northampton County is protected from erosion by Virginia’s barrier islands. These undeveloped barrier islands are part of the Volgenau Virginia Coast Reserve and the Virginia Department of Conservation and Recreation, but are open to the public for low impact day use. The “bayside” is made up of several small peninsulas or “necks”, which serve as estuaries for aquatic life.

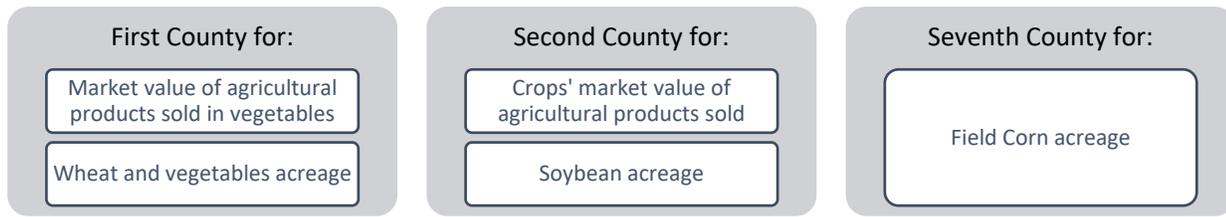
Conservation is a central element to Northampton County. Not only is the county part of the longest expanse of coastal wilderness remaining on the eastern seaboard of the United States, but it is an important avian migration funnel in the North American flyway. Preservation has been a central concern to economic development officials as well as county zoning officials. Both have structured efforts in a way that will preserve natural resources while promoting growth, including eco-tourism and small business entrepreneurship.

According to data gathered from the 2021 US Census Bureau, Northampton County has a population of 12,226 people, which is a 3.4% increase since 2020. There are 58 people per square mile in the county. The racial makeup of the county is 56.8% white, 31% African American or black, 9.7% Hispanic, 2.88% two or more races, 1.1% Asian, and 0.5% American Indian. Those over the age of 65 make up 29.5% of the population, while 18.2% of the population is under the age of 18. The median age of the population is 50.7.

The mean household income in Northampton County is \$50,347, 28% lower than the mean household income of the United States. The poverty rate for Northampton County in 2021 was reported at 16.5%.

The Bureau of Labor Statistics reports that unemployment rates have remained steady at 5% from 2018 to 2023. In the workforce, the American Community Survey (ACS) data shows that 12% of those employed are not high school graduates, 34% have a high school degree or equivalent, 26% have some college or an associate’s degree, and 22% of the employed workforce in Northampton County has a bachelors or post-graduate degree. Agriculture, Forestry, Fishing, and Hunting have historically played a large part in the economic and social lives of Northampton County residents. However, Health Care, Social Assistance, Education and Local Government industries employ the majority of the county residents.

Agriculture and aquaculture are the largest industries in the county. Based on the 2017 census, Northampton County ranks as follows among agricultural producing counties in the Commonwealth (USDA, 2017):



Top commodities include soybeans, wheat, corn, potatoes, tomatoes, and snap beans. Northampton is home to the largest fresh market snap-bean operation on the East Coast of the United States as well as other large fresh market vegetable producers of potatoes, 1,915 acres in 2022 (Torres et al, 2022), and tomatoes, 893 acres (VA Farm Bureau, 2022).

Northampton has seen a loss in the number of farms and in the amount of farmland but remains a largely important county with impactful agricultural producers. According to the 2017 USDA census, there are 142 farms in Northampton County, down from 147 in 2012 (USDA, 2017). Likewise, land in farms has decreased by 13.9% (more than 7,700 acres) to 48,279 acres between 2012 and 2017 (USDA, 2017). However, with high-value vegetable farms, Northampton County averages at \$196,277 in terms of net operating income per farm while the net operating income per farm average for the state of Virginia is \$19,306 (USDA, 2017). The market value of agricultural products sold in Northampton increased by 3% from 2012 to 2017 (USDA, 2017).

Northampton is home to the largest clam and oyster producing operation in the United States. Clams feed by pumping large amounts of water through their gills and filtering out microscopic sized food particles. Along with these small particles, they also filter out bacteria and viruses from the overlying water. Since these shellfish may be eaten raw, care must be taken to ensure that shellfish harvested for direct marketing are taken from very clean water. Waters approved for the direct harvest of shellfish must therefore be much cleaner than waters approved for swimming, fishing, etc. The 2017 Ag Census reported 47 aquaculture producers for a value of \$28,071 (in \$1,000) (USDA, 2017). In 2018, 503.7 million clams and 103.7 million single oysters were planted in Virginia, with the great majority being in Northampton County (Hudson, K., 2018). The contribution to the state's economy in terms of revenue totals 32.1 million for oysters and 38.8 million for clams (Hudson, K., 2018). This multi-million-dollar industry has become a major agricultural commodity for Northampton County. Consequently, watershed conservation was identified as a priority issue.

There are two public elementary schools and one middle/high school in Northampton County. The two elementary schools are Pre-K through 6th grade. The middle/high school covers grades 7-12th. Currently, the middle/high school is in desperate need of structural repair. Additionally, there are three private schools who offer a Pre-K through 6th grade education and one private school offering Pre-K to grade 12. The Eastern Shore Community College in Melfa, Virginia (Accomack County) serves as a regional gateway to post-high school education and training on the Eastern Shore.

According to the US News and World Report, of the 426 students enrolled in Northampton High School, 36% participate in Advanced Placement courses. The total minority enrollment is 69%. Data from countyhealthrankings.org indicates that 15% of Northampton High School students do not graduate on time or drop out of school.

The ACS 2017-2021 5-year estimates reports that 36% of children in Northampton County live in a single parent home and 37% of children live with a grandparent as their primary care giver. These lifestyle choices often lead to low income and poverty situations. The school system qualifies for the community eligible provisions program, providing all students with free breakfast and lunch.

In 2013, the collective Eastern Shore region had 627 total deaths. The Virginia Department of Health stated that the leading causes of mortality by a large margin were malignant neoplasms (i.e., cancer) and heart disease, followed by chronic lower respiratory diseases, cerebrovascular diseases, and diabetes. Age-adjusted death rates were higher than the statewide rate for all combined deaths.

The two counties located on the Eastern Shore were ranked among the least healthy counties in the Commonwealth of Virginia according to 2022 county health rankings. Northampton county has an obesity rate of 39%. Obesity issues can lead to other illnesses from chronic to acute, some very severe and deadly, such as diabetes, high blood pressure, coronary artery disease, coronary vascular disease, heart attack, stroke and even cancer. Health challenges do not stop with obesity; 13% of residents in the county are uninsured and the county has a teen birth rate of 32 (defined as number of births per 1,000 females). This is double the state rate of 15. Additionally, Northampton residents have had statistically poorer physical and mental health days than the rest of the Commonwealth of Virginia.

Community and Resident Perspectives

Based on issue areas identified in the unit profile, a Qualtrics survey was developed and distributed by the faculty and staff of the Northampton County Extension Office. The surveys were distributed through social media, email, fliers with a weblink and QR code.

The top issues identified in Northampton County were:

Ensure safe, high quality foods	86.7%
Helping youth develop leadership, citizenship, and other life skills	80.0%
Ensuring safe food handling practice to prevent foodborne illness	80.0%
Promoting scientific literacy among youth	80.0%
Promoting alternative agriculture	80.0%
Promoting agricultural, natural resources, and environmental literacy	80.0%
Assisting farmers and forest landowners in production and profitability	73.3%
Promoting economic development	73.3%
Controlling invasive pests (plants, animals, insects)	73.3%
Reducing misuses and overuse of pesticides and fertilizers	73.3%

This does differ from the state issues, in which state-wide respondents selected protecting water quality as a top issue, and did not have the youth issues listed. However, the state results did list ensuring safe, high quality foods, and ensuring safe food handling practices to prevent foodborne illness among the top three issues.

Community Issues

Based on the unit profile and resident perspectives data from above, the following top priority issues were identified for Northampton County.

Issue 1: Ensure safe, high quality foods

Northampton County is considered a food desert, with only two grocery stores located in the county and limited farmer markets. The two grocery stores are sometimes limited by supply and demand therefore, depending on the time of year, the quality of foods available are lacking. Other grocery stores within the area are distance or cost prohibitive due to the drive north into Accomack County or the drive south to the Hampton Roads area and a toll to cross the Chesapeake Bay Bridge-Tunnel, which is set to increase in January 2024. The lack of high-quality foods can lead to obesity issues. Northampton County ranks in the top 25 out of 134 Virginia counties for food insecurity prevalence with over 20% of its population encountering food insecurity (Primich and DeSilva, 2023). While there are several farm stands in the county, they are not easily accessible by all citizens, open year-round, or are too costly for the average citizen in Northampton County.

Issue 2: Helping youth develop leadership, citizenship, and other life skills

Northampton county is a rural county with a limited number of programs available for the youth. To make matters worse, the Boys and Girls club that was operating in the county relocated out of the county during COVID and the void has not been filled. The county does have a thriving parks and recreation program; however, it does not have a lot to offer youth who are not interested in sports. Therefore, there are limited opportunities for youth to gain valuable leadership and citizenship skills. On respondent stated we need to keep empowering the youth.

Issue 3: Ensuring safe food handling practice to prevent foodborne illness

Food handling issues and foodborne illness are a rising concern throughout the United States. However, Northampton County only counted 1 inspection related to foodborne illness and 2 complaints within its food establishments in 2023 (VDH, 2023). Overall, Northampton County still ranks higher in terms of percentage of foodborne illness risk 3 and risk 4 food establishments (within the rating of 1 through 4) (VDH, 2023). Overall, Northampton County has 19.2% of food establishments at risk 1, 23% at risk 2, 34.6% at risk 3 and 23% at risk 4 (VDH, 2023).

It should also be noted that in terms of foods related to aquaculture activities, an eightfold increase in the incidence of *vibrio* infections has been reported from 1998 to 2018 (Archer et al., 2023). The data does not, however, differentiate between gastrointestinal illnesses and wound or bloodstream infections. *Vibrio* is a naturally occurring bacteria found in salty or low salinity waters that causes gastrointestinal distress (Archer et al., 2023). Ensuring mollusks (oysters and clams in Northampton County) are safe for raw consumption is imperative.

Issue 4: Promoting scientific literacy among youth

Science has become an increasingly important subject, as most jobs in the future are expected to be in the field of Science, Technology, Engineering, and Math (STEM). Furthermore, the Commonwealth of Virginia has started conducting standards of learning (SOL) testing in the field of science. The problem is elementary teachers often do not feel prepared to teach science, and therefore the basic foundations are not being taught.

Issue 5: Promoting agricultural, natural resources, and environmental literacy

Ag Education and Life Skills for Youth was identified as a pressing issue in Northampton County. This includes ensuring a positive education experience, working to establish agriculture and STEM based clubs and in-school training opportunities, and youth development and teen leadership opportunities. Many of those surveyed called for more “youth activities” and “education of kids/new-comers of the importance of agriculture to our community”. Concerns were raised that our “community is losing touch with the agricultural (or rural) way of

life”. Several survey respondents stated extension needs to continue to support agriculture as it is the livelihood of Northampton County. Several felt we needed education to become good stewards of our natural resources.

Future Programming to Address Community Issues

The unit plans to develop small farm educational programs to support new farmers and ensure the continued success of local farms that are currently in production. The agriculture agent plans to work with the local farms stands to encourage taking EBT cards allowing lower income residents access to local grown foods. The agent will work with local farmers to establish pop up markets in more areas of the county. Finally, agents will work to increase the community’s accessibility of farmers markets.

Produce and aquaculture producers are going to be encouraged to be trained and obtain certifications such as GAP (Good Agricultural Practices) for fresh produce, GMP (Good Manufacturing Practices) for value-added products, and BAP (Best Aquaculture Practices) for seafood. Only three large potato producers and one large snap bean producer/packing facility in Northampton County are GAP certified. Based on results from a Qualtrics survey of small producers in Northampton County in November 2023, only 42% responded they would be interested in attending a GAP training session. This indicates a need for increased awareness of food safety issues and educational opportunities.

Safe food handling procedures and the prevention of foodborne illnesses can be addressed through ANR by developing training opportunities for farm related food safety certifications. The agriculture agent plans to survey local farmers to gather information on who needs GAP, GMP, and BAP certifications. The agent plans to provide farmers market educational resources for safe handling. The agent will also work with local farms to provide educational programs and resources for safe food handling.

Extension’s 4-H program is working to address the youth issues. The 4-H program has a thriving shooting education club that is providing leadership opportunities for youth. The 4-H agent is also seeking additional adult volunteers to start new 4-H clubs that have a broader focus. The 4-H agent does recruit and train local teens to serve as camp counselors. Thus, providing the teens with valuable leadership and life skills. The 4-H agent has talked with the local YMCA and the public library about partnering together to offer programs for school aged youth.

The 4-H agent is currently partnering with the Eastern Shore Soil and Water Education director to bring back the Regional Science Fair in the spring of 2024. The 4-H agent has offered to go into the schools to work with students on the scientific method and to conduct basic hands on science experiments so students will be better prepared. In addition, the 4-H agent conducts STEM programming in all the schools (public and private) each school year through 4-H’s school enrichment programs.

As a unit the 4-H and agricultural agents will increase efforts to provide supplemental “hands-on” learning experiences, partner with other youth serving agencies and community groups to provide agriculture education and life skills to youth in Northampton County. This includes participation in annual programs such as the Northampton County Ag Fair and Farm Tour day.

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