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Loudoun County 2023 Situation Analysis Report

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Figure 1. Leesburg, VA (Dream Finders Homes)

Figure 2. Top 10 Issues respondents selected as very high or high effort

Issue	High Effort (n)	Very High Effort (n)	% of respondents
Protecting water quality	78	140	88.6%
Preserving farm and forest land	74	124	80.5%
Reducing misuses and overuse of pesticides and fertilizers	70	108	72.4%
Protecting freshwater resources (lakes, rivers, springs, wetlands)	75	101	71.5%
Controlling invasive pests (plants, animals, insects)	65	109	70.7%
Promoting agricultural, natural resources, and environmental literacy	79	95	70.7%
Strengthening the local food system	85	85	69.1%
Managing natural habitats and ecosystems	69	98	67.9%
Protecting air quality	63	102	67.1%
Assisting farmers and forest landowners in production and profitability	61	98	64.6%

Introduction

Virginia Cooperative Extension (VCE) Loudoun agents, staff and volunteers work to assist farmers, empower youth, guide responsible resource management, and advance the wellbeing of all Virginians. The purpose of this situation analysis is to provide a moment in time analysis of the perceived needs of the residents of Loudoun County. Equipped with this information, the Loudoun Unit will be better positioned to modify and even create programming to meet these needs.

The method used to conduct the 2023 VCE Loudoun Situational Analysis was a survey. This survey was created at a state level and modified to be specific to Loudoun County. The survey primarily asked respondents to select issues from an extensive list that they believe VCE Loudoun should focus high effort and alternatively, low effort towards over the next 4 years (2024-2027). This survey was piloted through the Loudoun Extension Leadership Council (ELC) members and then distributed widely. It was also translated into Spanish to increase the audience who would be able to effectively respond.

The survey was distributed widely using a number of diverse and creative channels such as:

- Social media campaigns
 - Facebook - VCE Loudoun, VCE Loudoun 4-H, VCE Loudoun Master Gardeners, shared by many partners such as the Loudoun County Government, non-profit groups
- Loudoun County Public Libraries created a banner on their public website with a link to the electronic survey
- House File campaign – Email sent to our more than 5,000-member house file informing them of the survey
- Board of Supervisors newsletters – a number of the Loudoun Supervisors included the survey link in their monthly newsletter to their constituents
- The Loudoun Rural Economic Development Council members were asked to distribute the survey to their networks
- ELC members distributed the survey to their networks.
- The Department Directors of the Health and Human Services Network which VCE Loudoun is part of were asked to distribute the survey their clients and networks.

Unit Profile

Loudoun County, located 25 miles west of Washington, D.C., is approximately 520 square miles in size. It is considered part of the Northern Virginia area and the Washington D.C. Metropolitan Statistical Area (MSA). The Washington D.C. MSA includes the Virginia Counties of Arlington, Clarke, Fairfax, Fauquier, Prince William, Spotsylvania, Stafford and Warren; the Virginia Cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas and Manassas Park; along with multiple jurisdictions in Maryland and West Virginia. Since the opening of Dulles International Airport in 1962, new business and residential development has transformed the County's historically agricultural economy; particularly in the eastern portion.

The County Government currently estimates the 2023 population to be **440,071 residents**. That is **37,510 more residents** since 2018 when the last situational analysis was completed. These residents of Loudoun occupy 142,074 housing units an increase of 11,164 since 2018. Loudoun is home to 97 public schools with 82,125 students enrolled in the 2023-2024 School Year.

Loudoun County's 2022 per household median income was \$147,111. Loudoun's high median household income is largely due to the County's highly-educated workforce, the availability of high-wage jobs in the region, a high labor force participation rate, a high percentage of working-age persons, and low unemployment rate. The high median income also relates to the high cost of housing. Median household income is typically thought of as an indicator of how well-off a household is financially. However, it is also an indicator of the amount of income needed in a household in order to afford to live in a place. In Loudoun, the high cost of housing has limited immigration over recent years mainly to higher income households.

Loudoun County has a low percentage of its population in poverty, 3.6 percent. Many low wage earners in Loudoun earn too much to qualify for assistance from poverty programs, but not enough for self-sufficiency due to the high cost of living in Loudoun County and the region.

Current land use in Loudoun County varies between suburban commercial and residential

developments, small villages, and rural areas. The vast majority of land in the county is devoted to rural type uses. The eastern portion of Loudoun County is characterized by typical suburban developments, with higher densities along major corridors. Development in this area is centered on four communities, including Dulles, Sterling, Potomac, and Ashburn. The western portion of the county is rural in nature and encompasses over two-thirds of the county’s area. These areas contain mostly farms and rural residential development.

Community Issues and Resident Perspectives

Through our extensive marketing and outreach campaign, we were able to share the survey information with more than 10,000 residents. This resulted in **246 responses**. The below tables present the information about the demographics of the respondents, the issues that were identified as needing high effort, low effort and other open-ended perspectives.

Figure 3. Age of the respondents

Age	Total	%
18-24	4	1.6%
25-34	13	5.3%
35-44	31	12.6%
45-54	38	15.4%
55-64	68	27.6%
65-74	58	23.6%
75-84	29	11.8%
85+	5	2.0%

Figure 4. Gender of the respondents

Gender	Total	%
Male	82	33.3%
Female	156	63.4%
Other	8	3.3%

Figure 5. Race of the respondents

Race	246 respondents		Loudoun (2019)
	Total	%	%
White	208	84.6%	51.8%
African American/Black	4	1.6%	7.31%
Multi-racial & other	34	13.8%	40.89%

Figure 6. Education of the respondents

Highest Level of education	246 respondents		Loudoun (2019)
	Total	%	%
Did not complete high school	1	0.4%	5.6%
High school degree	8	3.3%	10%
Some college credit, no degree	18	7.3%	13.4%
Trade/technical/vocational training	5	2.0%	NA
Associate degree	12	4.9%	5.7%
Bachelor's degree	93	37.8%	34.6%
Master's degree	74	30.1%	30.7%
Doctorate and/or professional degree	35	14.2%	

Figure 7. Income of the respondents

Income	Total	%
< \$50,000	32	13.0%
\$50,000 - \$99,999	55	22.4%
\$100,000 - \$149,999	47	19.1%
\$150,000-\$199,999	43	17.5%
\$200,000 +	69	28.0%

Figure 8. Employment Status of the respondents

Employment Status	Total	%
Employed full time	106	43.1%
Employed part time	23	9.3%
Unemployed looking for work	8	3.3%
Unemployed not looking for work	4	1.6%
Retired	90	36.6%
Student	1	0.4%
Unable to work	0	0.0%
Military	0	0.0%
Other	14	5.7%

Figure 9. Respondents who have participated in or received info from VCE

Response	Total	%
Yes	143	58.1%
No	86	35.0%
Unsure	17	6.9%

Figure 10. Top 10 Issues respondents selected as very high or high effort

Issue	High Effort	Very High Effort	% of respondents who selected high or very high effort
Protecting water quality	78	140	88.6%
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Protecting air quality	63	102	67.1%
Assisting farmers and forest landowners in production and profitability	61	98	64.6%

Figure 11. Top 10 Issues respondents selected as low effort or no effort

Issue	No effort	Low Effort	% of respondents who selected no effort or low effort
Strengthening couple and/or marital relationships	63	78	57.3%
Addressing alcohol abuse	58	76	54.5%
Addressing prescription drug abuse	58	72	52.8%
Teaching people to protect themselves from identity theft, frauds, and scams	53	65	48.0%
Strengthening dependent care	58	59	47.6%
Strengthening parenting skills	60	56	47.2%
Teaching people to manage their money	50	60	44.7%
Providing physical fitness education	34	69	41.9%
Preventing youth violence	54	49	41.9%
Addressing poverty	48	54	41.5%

The survey asked the following open-ended question; What do you believe is the most pressing community issue for VCE to address in Loudoun County and why do you think this?

Figure 12. Qualitative data based on open ended question.

Topic	Number of respondents
Natural resources (protecting, educating, climate change, invasive species, SLF)	74
Agriculture (preserving, supporting, promoting, educating)	59
Development (stop growth/preserve farm land)	36
Affordable housing (lack)	15
Youth education/wellbeing	15
Food insecurity/hunger (accessibility/food distribution/elderly/youth)	14
Food system/supply (strengthening/knowing where our food comes from)	11
Water quality/testing/safety	11
Nutrition (food education)	8
Other <2 (biking trails, reducing taxes for elderly, affordable childcare, community gardens, general outreach to share our mission, traffic)	2

Identifying Priority issues

The above data provided interesting information with regard to priority issues for VCE Loudoun. Figure 10 and 12 provided useful data related to issues of importance to Loudoun resident with 6 issues being identified by more than 70% of the respondents as ones VCE Loudoun should put high or very high effort towards in the next 4 years. That data as well as how equipped VCE Loudoun currently is and will be in the near future informed the identification of the below priorities.

1. **Natural resources education** – Figure 10 and figure 12 demonstrate the priority given to natural resources education. Specific topics include:
 - a. Water/water quality
 - b. Preserving farm and forest land
 - c. Pesticide and fertilizer application
 - d. Invasive pests/plants
 - e. Freshwater resources.
2. **Supporting Local Production Agriculture** – through education related to promotion, production, profitability, sustainability, strengthening the food system and preserving land.
3. Youth Wellbeing and Mental Health.
4. **Food Security and diet related disease** – table 12 shows that 22 of the comments made addressed the need for education related to food security and or nutrition.

Future Programming to Address Community Issues

The programming focus for VCE Loudoun over the next 4 years will seek to address the four identified needs of this situational analysis. In addition to the priority issues, VCE Loudoun will continue to remain flexible and nimble in order to efficiently and effectively pivot to new community needs as they arrive. Below is an outline of the programming focus for each of the 4 identified priority issues:

1. **Natural resources education.** This issue is a core tenant of the VCE Loudoun mission as a local unit and one that the team has been addressing for many years. This issue will be addressed through strategic education and resources delivered both by the agents/staff as well as the trained volunteers. Examples of such education programming include the recently formed invasives species education volunteer team and program. The team of trained Master Gardener Volunteers focus on identifying, educating, and eradicating invasive plants for residents and HOA common areas. The initial reach is for properties under 3 acres. The program launched officially in early September 2023 with an educational website page, request form, site visits and extensive reports. The report covers invasive education, eradication planning, list of invasive plants found as well as natives found on the visit, photos of the invasive plants, scientific management strategies of the invasives, and other pertinent resources based on the client questions. VCE Loudoun will partner with HOA's and other Loudoun County departments (General Services, Building and Development etc.) to accomplish this. Another example of this that ties to the data from the needs assessment results is water quality programming. Since 2020 VCE Loudoun has coordinated the largest Virginia Household Water Quality Program in the Commonwealth testing more than 440 wells annually. This program will continue to reach those numbers due to the growing demand and resulting waitlist. VCE Loudoun will continue to partner with other Loudoun County departments such as the Health Department, General Services and Public Affairs and Communications.

2. **Supporting Local Production Agriculture.** A long-standing client of VCE Loudoun has been and will continue to be the production agriculture industry in Loudoun County. Our Agriculture and Natural Resources education programming (comprised of Animal/Crop Science as well as Commercial Horticulture) will continue to support the needs of this community through relevant and accessible programming. This programming will be provided in the form of education, mentoring, community connections, resources and more with the expressed purpose of meeting the individual and collective needs of the producers in Loudoun County and their workers. These needs will vary based on the operation and will focus on production best practices and regulations such as pesticide application certification, food safety, disease management, animal husbandry, supply chain logistics and more. VCE Loudoun will continue to grow the strong relationship with Loudoun County departments such as Economic Development, Parks Recreation and Community Services, General Services and stakeholders such as the Loudoun Soil and Water Conservation District.
3. **Youth Wellbeing and Mental Health.** Another core client of VCE Loudoun is the youth of Loudoun County. Addressing the identified need of youth wellbeing and mental health will primarily be done through our 4-H programming. Research suggests that the more assets young people have, the less likely they are to engage in a wide range of risky behaviors and the more likely they are to thrive (Scales et al., 2000). Assets enhance a young person's ability to resist risks and make good decisions. The report defined an asset as “strengths in young people, their families, schools, and communities that help them thrive in health, in school, and daily life, and in a safe environment”. Of the six assets identified as reducing the likelihood of depressive symptoms, high stress, suicidal ideation and attempted suicide, four are core to the mission of 4H;
 - a. Participating in extracurricular activities
 - b. Having high personal integrity
 - c. Having community adults to talk to
 - d. Performing community service

Through VCE Loudoun, 4H provides the opportunity to the young people of Loudoun County to be involved in activities which directly reduce the prevalence of youth depression and therefore according to research the improve wellbeing and mental health outcomes. The impact of VCE Loudoun 4-H plays a primary role in the effort to address the priority issue of youth wellbeing and mental health by providing an upstream solution to the youth and families of Loudoun County. This programming will continue to operate through the diverse 4-H clubs and activities (Summer camp, congress, day at the capital and more) coordinated by the 4-H team within VCE Loudoun.

VCE Loudoun 4-H will continue to partner with Loudoun County Public Schools (LCPS), the non-profits and community stakeholders to achieve this.

4. **Food Security and diet related disease.** An emerging issue in Loudoun is food security and addressing diet related disease. According to the Centers for Disease Control and Prevention (CDC), in 2019 24.5% of Loudoun’s adult (older than 20 years of age) population was considered obese (BMI \geq 30) which accounted for approximately 71,050 adults over 20 years old. 61.3% (or 253,782) of Loudoun’s adult population was considered overweight or obese (Virginia Behavioral Risk Factor Surveillance System). In 2019-2020, 14.9% of children aged 10-17 in Virginia were considered obese. According to the 2019 Loudoun County Health Assessment, obesity was ranked 4th most important health issues in our community.

The impact of obesity in Loudoun County

According to the Live Healthy Loudoun Community Health Dashboard the percentage of obese adults is an indicator of the overall health and lifestyle of a community. Obesity increases the risk of many chronic diseases and health conditions, including heart disease, type 2 diabetes, cancer, hypertension, stroke, liver and

gallbladder disease, respiratory problems, and osteoarthritis. Reducing excess weight and maintaining a healthy weight can help to prevent and control these diseases.

Obesity also carries significant economic costs due to increased healthcare spending and lost earnings. Ward et. al. (2021) found that over 30 units of BMI, each one-unit BMI increase was associated with an additional cost of \$253 per person per year. Among adults, obesity was associated with \$1,861 excess annual medical costs per person, accounting for \$172.74 billion of national annual expenditures. Severe obesity was associated with excess costs of \$3,097 per adult annually. Among children, obesity was associated with \$116 excess costs per person and \$1.32 billion of medical spending annually, with severe obesity associated with \$310 excess costs per child.

The study concluded that health care expenditures are higher for people with excess weight across a wide range of ages and BMI levels, with especially high costs for people with severe obesity. Obesity-related medical costs are higher for adult females, and increase with age for all adults, with the highest estimated costs occurring for 60–70-year-olds. Although childhood obesity contributes a small proportion of total obesity-related medical costs, because excess weight in childhood is a strong predictor of adult obesity, policies to prevent excess weight gain at all ages are needed to mitigate the health and economic impact of the obesity epidemic, which accounts for over \$170 billion in excess medical costs per year in the United States. Putting that into perspective for Loudoun County, the 71,050 residents who had a BMI >30 in 2019 accounted for \$132,224,050 that year in excess medical costs due to their obesity.

This data and findings highlight the importance of promoting healthy weight across the entire BMI distribution and provide policy makers and practitioners with more accurate estimates of the health care cost impact of excess weight by age, sex, and continuous BMI.

The impact of diabetes in Loudoun County

According to the CDC, in 2019 6.5% of Loudoun's adult (older than 20 years of age) population with a diabetes diagnosis accounts for approximately 18,850 adults over 20 years old. According to the Live Healthy Loudoun Community Health Dashboard diabetes is a leading cause of death in the United States. This disease can have a harmful effect on most of the organ systems in the human body; it is a frequent cause of end-stage renal disease, non-traumatic lower-extremity amputation, and a leading cause of blindness among working age adults. Persons with diabetes are also at increased risk for ischemic heart disease, neuropathy, and stroke. Diabetes disproportionately affects minority populations and the elderly, and its incidence is likely to increase as minority populations grow and the U.S. population ages.

Diabetes also carries significant economic costs due to increased healthcare spending and lost earnings. A 2018 study by the American Diabetes Association estimated the economic cost of diagnosed diabetes in the United States to be \$327 billion. The study found that people with diagnosed diabetes incur average medical expenditures of ~\$16,750 per year, of which ~\$9,600 is attributed to diabetes. People with diagnosed diabetes, on average, have medical expenditures ~2.3 times higher than what expenditures would be in the absence of diabetes. Putting that into perspective for Loudoun County, the 18,850 residents who were diagnosed with diabetes in 2019 accounted for \$180,960,000 in excess medical costs due to their obesity.

In order to accomplish the programming required to address food security and diet related diseases such as nutrition education, cooking education, cost effective shopping habits and more, VCE Loudoun is requesting an FTE from the Loudoun County government in the FY25 budget. This FTE will not only be responsible for conducting nutrition education but additionally will recruit and train volunteers to assist in the delivery of nutrition education which would result in increased programming. There are currently six (6) VCE trained volunteers providing nutrition education programs to Loudoun residents on a limited scale. The addition of this FTE will enhance the health and well-being of County residents by providing education and training that targets diet related diseases. This position supports Loudoun's community-

wide roadmap focused on addressing social determinants of health that impact the lives of Loudoun residents by supplementing and enhancing the efforts of the Health Department's new Population Health Division as well as other departments which provide services to address this critical issue. This FTE will also support efforts of the Department of Family Services' Adult and Aging Team in addition to numerous other departments (Health Department, LCPS) and non-profits.

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