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City of Alexandria 2023
Situation Analysis Report

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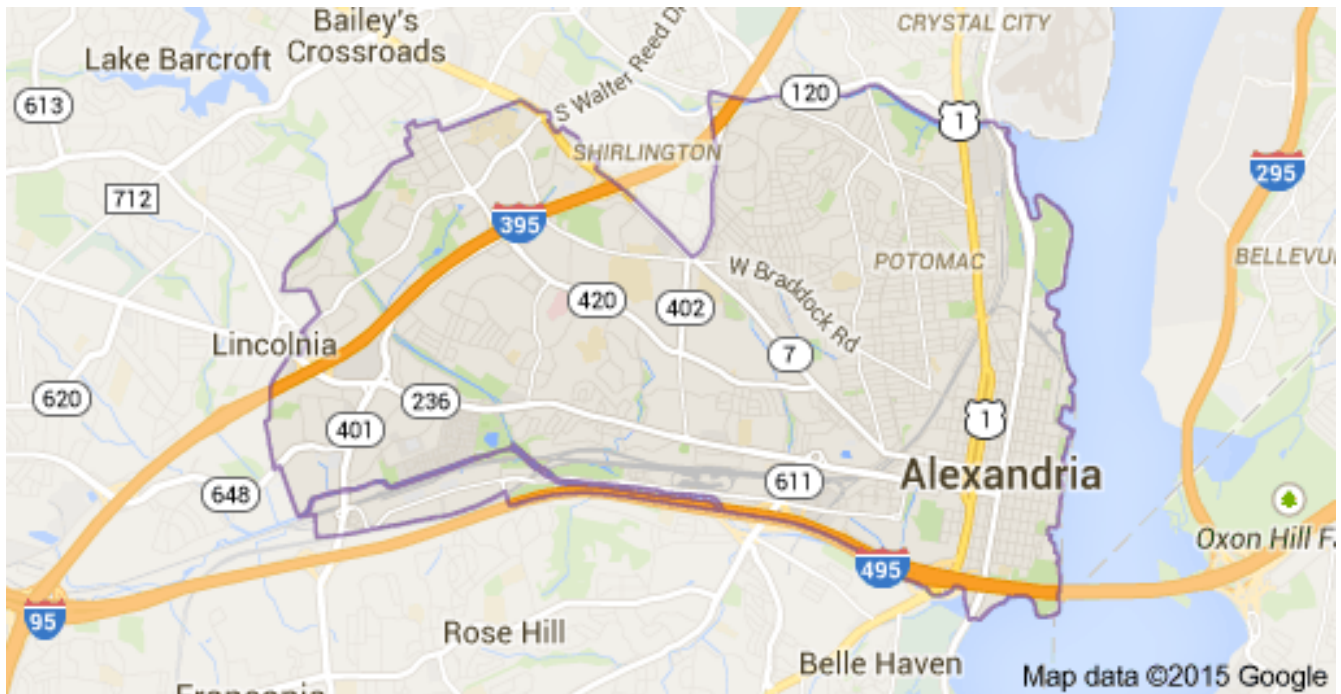
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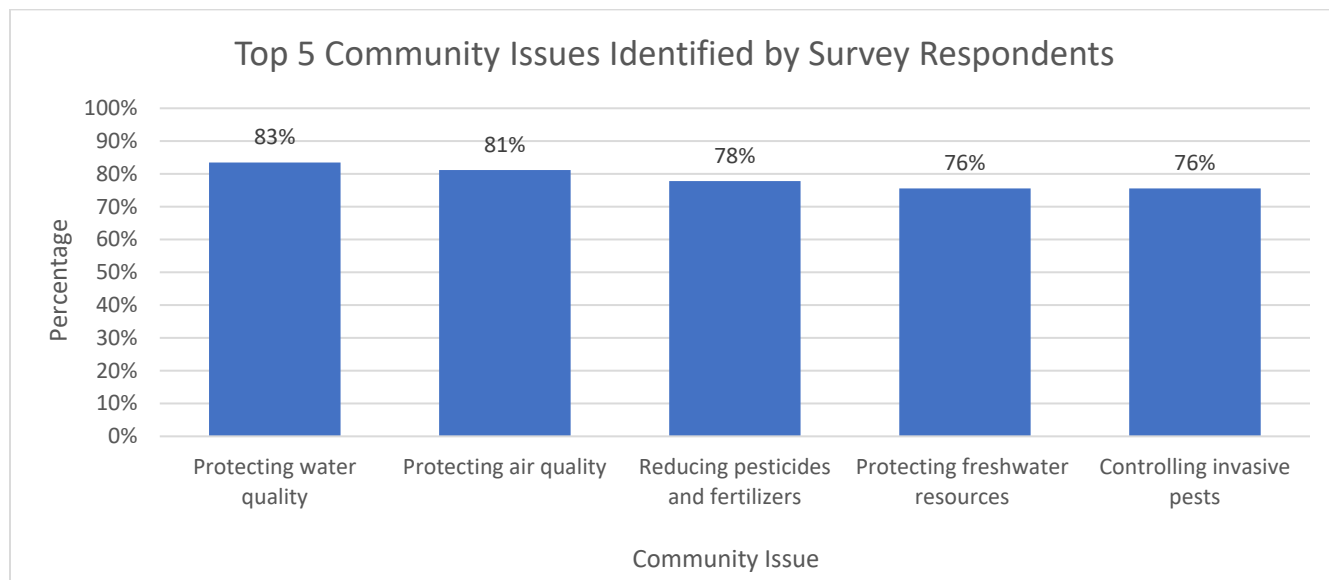*Milena Montoya, Program Assistant, Family Nutrition Program*
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This page provides a summary of the key findings from the 2023 Alexandria community survey analysis. The top five priority issues are listed in Table 1 and the key takeaways section below the table provides a report summary.

Table 1: The top five issues identified in the Alexandria community survey analysis. Percentage shows how many respondents marked the issues as "high priority" or "very high priority."

Key Takeaways

Introduction: This survey examined City of Alexandria residents' perceptions on community issues for guiding Virginia Cooperative Extension's (VCE) future direction within the City. The survey was open for two months and received 270 responses.

Unit Profile: Alexandria is a 15.35 square mile independent city directly outside Washington, DC. The City has a rich history and key attractions like the Torpedo Factory, Old Town, and the wharf. The population is 154,706 (3% decrease from 2019), highly diverse and educated, but a large income disparity is prevalent and impactful.

Community and Resident Perspectives: There were 266 usable responses. Respondents skewed towards older White age groups and higher-income brackets.

Priority Issues: There were three priority issues identified in the community survey. Listed below are the priority issues, a brief description of each issue, and future programming direction.

- **Environmental Conservation:** The top concerns in Alexandria centered around the environment, especially water and air quality, all of which aligns with Alexandria's Environmental Action Plan. It is being addressed by Agricultural and Natural Resources programs to educate about invasive species, tree canopies, stormwater management, and much more to keep Alexandria eco-efficient.

- **Local, High-Quality Food Systems**: Alexandria has a large health disparity with high obesity rates in youth and adults and varying life expectancy based on neighborhood. It is being addressed by training Master Food Volunteers and Master Financial Volunteers to teach diverse audiences how to prepare healthy food, plan and maintain a budget, and manage debt.

- **Youth STEM Literacy:** Alexandria youth perform below the state average in key subject areas, including math and science, and there is a large demand for STEM careers and associated critical

thinking. It is being addressed by partnering with local organizations to provide youth and families various STEM educational opportunities, in addition to providing low-cost 4-H clubs throughout the City.

Introduction

The purpose of this assessment was to examine the City of Alexandria residents' perceptions of potential community issues to help guide Virginia Cooperative Extension (VCE) in its mission to help the Alexandria community by implementing research-backed programs. The survey was prepared throughout the 2023 calendar year with the community survey input being collected from August to October. This was potentially the largest input Alexandria has received for this survey with 270 total responses.

Information was mainly collected through the community survey itself, which was distributed to Extension Leadership Council (ELC) members, program volunteers, and community partners to answer for themselves and share throughout the City. The Alexandria Office of Communications and Community Engagement distributed the survey link through their social media, websites, and community update channels, contributing a substantial amount of responses. Other information was mainly compiled from the VCE unit profiles, VCE Statewide Needs Assessment, the Alexandria 2025 Children and Youth Master Plan, and the 2040 and Alexandria Environmental Action Plan. Additional statistical data was pulled from various Northern Virginia resources.

Unit Profile

The City of the Alexandria is a 15.35 square mile independent city located on the Potomac River five miles south of Washington, DC. It has a rich and deep history contributing to its acclaimed charm along the Potomac River; Conde Nast Traveler 2023 ranked it the third best small city in the United States. A timeline of the city's history is documented at the wharf and marked throughout the City.

In sum, Alexandria was founded in 1749 by Scottish merchants and was named after John Alexander who owned the land. Alexandria was a booming hub for trade and commerce due to its location on the river and eventually became a part of Washington, DC in 1791. However, it was returned to Virginia in 1846. The Alexandria Archaeology Museum continues to uncover ships and archaeological material from its time as a trading center.

The Archaeology Museum, along with many other organizations, contributes to Alexandria's prolific attractions. Alexandria's history is not based in agriculture like most of Virginia and this contributes to its modern-day direction and relatively high tourist rate. Three notable locations are the Torpedo Factory, Old Town Farmer's Market, and Old Town. The Torpedo Factor was a World War I torpedo production building and a World War II munitions plant and is now a center for local artists. The Old Town Farmer's Market is one of the country's oldest continuous farmer's market and a place where George Washington sold produce. Lastly, the distinguished attraction to Alexandria is Old Town itself with its cobblestone streets, preserved rowhomes, and small shops.

Alexandria's location was pivotal in the city's history, but contributes today to its large demographic range and employment sectors. The 2021 population was 154,706 (3% decrease from 2019), equating to nearly 10,300 people per square mile. The main employment sector in Alexandria is in government (23%) (14% federal, 8% local, and 1% state) with the largest employers being the Department of Defense and Department of Commerce. Alexandria City Public Schools (ACPS) is the third most common city employer and serves a highly diverse youth population. Students hail from 119 countries and speak 121 native languages.

The largest age group is 35-39 years old (11%) and there are slightly more females than males (52% female to 48% male). White is the predominant identified racial group (51%), followed by Black/African American (21%), Hispanic (17%), Asian (6%), and two or more races (6%). Most residents have a bachelor's degree or higher (65%) with a graduate or professional degree being common (36%) (compared to 14% nationally).

Alexandria is a relatively wealthy area with 20% of households having a combined annual income over $200,000 (as compared to 9% of households nationally). However, Alexandria also has a large income disparity with 52% of youth eligible for free or reduced lunch and 14% living below the poverty line. The second most common

income bracket (7% lower than the highest bracket) is a combined income of $75K-$99.9K (13%). Five percent of Alexandria households make less than $10K. Overall, the average household income in Alexandria is $141,427 and the median is $101,162 (the national average is $97,962 and the median is $69,7171).

Community and Resident Perspectives

There was a total of 270 responses for this 2023 community survey analysis with 266 being useable for the final report. The most common age bracket that answered the survey was 65-74 (25%), followed by a nearly equal split between 35-44 (20%), 45-54 (21%), and 55-64 (20%). There were no respondents from 18-24 or 85+. Most of the respondents make a combined income of $200K or more (29%), and 87% have a bachelor's degree or higher. Additionally, majority of the respondents have lived in Virginia for 10 or more years (80%).

More females than males responded (74% female, 24% males, and 3% other). Notably, 83% identified as White, 8% as Black/African American, and 9% as multi-racial and other, which is not in proportion to the city's racial demographics (51% White, 21% Black/African American, and 12% other). Only 6% identified as Hispanic as compared to the 17% in the total Alexandria population. Future survey analyses should focus on receiving more responses from diverse communities to better understand the needs of the whole population.

The survey asked respondents if they heard of the Virginia land-grant institutions and Virginia Cooperative Extension (VCE), along with its associated programs. Overall, they were generally known with Virginia Tech being the most common (99%), followed by Virginia State University (68%) and VCE (65%). Virginia 4-H was the most recognized program within VCE (70%), followed by Virginia Master Gardeners (63%), Family Nutrition Program (28%), and Virginia Master Naturalists (24%). The least known programs were Master Food Volunteers (6%), Master Financial Advisors (7%), Parenting Educators (9%), and Energy Masters (12%).

The top ten most and least identified issues from this survey are recorded in Table 2 and Table 3, respectively.

Table 2: Top ten most identified issues in the City of Alexandria. Percentage reports those that marked it as "high effort" or "very high effort."

Protecting water quality	83%
Protecting air quality	81%
Reducing misuses and overuse of pesticides and fertilizers	78%
Protecting freshwater resources (lakes, rivers, springs, wetlands)	76%
Controlling invasive pests (plants, animals, insects)	76%
Managing natural habitats and ecosystems	73%
Protecting the marine environment	71%
Strengthening the local food system	69%
Promoting scientific literacy among youth	68%
Ensure safe, high quality foods	67%

Table 3: Top ten least identified issues in the City of Alexandria. Percentage reports those that marked it as "low effort" or "very low effort."

Strengthening couple and/or marital relationships	50%
Addressing alcohol abuse	40%
Strengthening dependent care	35%
Addressing prescription drug abuse	35%
Teaching people to protect themselves from identity theft, frauds, and scams	34%
Strengthening parenting skills	32%
Teaching people to manage their money	31%
Promoting small business entrepreneurs	31%
Supporting businesses which engage in agritourism	27%
Preventing youth violence	26%

The top ten identified issues are similar to the state level results. The most common identified need in Virginia from the state report was "protecting water quality" with 75% of surveyed people marking it as a high effort or very high effort. This was followed by "ensuring safe, high quality foods" (73%) and "ensuring safe food handling" (69%). In three of the four age groups (35-54, 55-74, and 75+) "protecting water quality" and "ensuring safe, high quality foods" were the first and second most identified issues, respectively. In the 18-34 age group "preventing suicide" was the top issue (67%) followed by "addressing hunger issues."

The City of Alexandria also aligned with the location breakdown from the state data. "Ensuring safe, high quality foods" and "protecting water quality" were the first and second most identified issue for suburbs, respectively. However, it is notable that Alexandria may also be identified as a large city compared to other cities throughout Virginia. Respondents on the Alexandria survey differed in how they categorized the city with 28% saying they lived in a large city and 52% marking they lived in a suburb near a large city. In relation to this information, statewide data was different for large cities than suburbs with "preventing suicide" and "preventing youth violence" as the top two issues. Neither of these issues were in Alexandria's top ten, however "preventing youth violence" was identified in the least top ten issues.

Community Issues

The process for identifying the priority issues involved analyzing Tables 2 and 3, respondent comments, and identifying issues VCE Alexandria is best equipped for in making an impact on the community. The top three priority issues for the City of Alexandria based on those methods are 1) environmental conservation, 2) local, high quality food systems, and 3) youth STEM literacy.

Issue 1: Environmental conservation

Environmental conservation was identified as the top priority issue in the City of Alexandria, which encompasses the following seven issues from the top ten list (see Table 1 for reference):

- Protecting water quality
- Protecting air quality
- Reducing misuses and overuse of pesticides and fertilizers
- Protecting freshwater (lakes, rivers, springs, and wetlands)
- Controlling invasive pests (plants, animals, insects)
- Managing natural habitats and ecosystems
- Protecting the marine environment

These issues were also identified in other Alexandria resources, especially the City of Alexandria Environmental Action Plan (EAP) 2040. That plan is a highly detailed 128-page document outlining the City's plan to continuously improve its environmental footprint with a central focus on climate change and adaptation with the

goal to reduce emissions by 50% by 2030 (13% overall reduction in greenhouse gas emissions as already been achieved). The plan also outlines goals directly related to the identified VCE community survey priority issues, including increased tree canopy, water pollution, air quality, and invasive pests. The number one issue identified in the Alexandria survey and state survey was "protecting water quality" and this aligns with the City's goal to make Alexandria's waterbodies fishable and swimmable. Three comments directly from the community survey highlighting these issues from residents are as follows:

- "The most pressing issue to me is helping community members to farm and garden in a more environmentally sustainable way. I would like to see sustainability as a cross cutting theme in VCE's work, and the work should address both climate change mitigation and adaptation and other environmental issues like habitat loss, insect population collapse, the impact of runoff on water quality, etc."
- "Helping residents & property owners implement environmentally sound practices on their property/residences. E.g. minimizing runoff, erosion that lead to water quality problems, using native plants in landscaping, creating backyard habitats. Effective urban gardening techniques."
- "Probably waste water management at the personal level, tree canopy health/expansion, and better urban stewardship practices (e.g, avoiding fertilizers, diversifying away from monoculture grass lawns, avoiding pesticide use, growing vegetable plants or natives, etc). Why? Because many things urbanites do are environmentally damaging to human and wildlife health. And increasing tree cover is one of a handful of ways to help mitigate climate impacts through improving waste water runoff, generating shade to help alleviate home cooling issues during hotter summers, providing habitat for beleaguered local wildlife, and carbon capture."

Issue 2: Local, high quality food systems

Local, high quality food systems was identified as the second priority issue in the City of Alexandria, which encompasses the following issue from the top ten list (see Table 1 for reference):

- Strengthening the local food system

Healthy food is important for maintaining overall health and numerous Alexandria and Northern Virginia reports highlight the inability to obtain such foods or knowledge on how to prepare healthy meals in such communities. The 2017-2018 Kindergarten BMI Surveillance Report found 17.1% of Alexandria City Public School youth are obese and 12.4% are overweight and the 2019 City of Alexandria Community Health Assessment (CHA) showed 22% of adults report being obese. The CHA found in a resident survey that access to healthy food (fruits and vegetables) as one of the top five quality of life concerns. While on paper Alexandria is a wealthy community there is a large income disparity, as noted in the unit profile. The CHA highlighted that the average life expectancy can vary as much as eight years depending on the Alexandria neighborhood in which people live. A report from the Northern Virginia Health Foundation also found that premature death (dying before 75) in Alexandria was specifically attributed to race and neighborhood/income. Notably, 14% of people in the City are uninsured with 25% of those people earning less than the Federal Poverty Level despite an average City income of $141,427, contributing to the varying life expectancies. Three comments directly from the community survey highlighting these issues from residents are as follows:

- "All of these broad areas are critical services for supporting a community, especially in order to provide equity for all residents in such a vast economic spectrum as those of us who live in Alexandria. Third-place community resources that are free or low-cost for children and teens that offer caring adults and developmental programs is at the top of my mind. Second is the community food pantries that provide all families with nutrition resources. Providing empowerment to youth is a great way for kids to spend time with each other outside of the home, and income doesn't play a factor. Providing support to families to ensure their children have access to nutrition while at home (dinner, breakfast, and weekend meals) helps put all children and families on a level playing field and sets them up for success."

- "All seem important. If I had to choose, public health because is covers a huge variety of topics and people. It involves kids, adults, elderly as well as all socioeconomic backgrounds. There is the possibility to impact a huge swath of people"
- "Strengthening our food supply. It is my belief that this will lead to improvement in stewarding natural resources, eating healthy and will advance the wellbeing of youth and their families."

Issue 3: Youth STEM literacy

Youth STEM literacy was identified as the third priority issue in the City of Alexandria, which encompasses the following issue from the top ten list (see Table 1 for reference):

- Promoting scientific literacy among youth

STEM (science, technology, engineering, and mathematics) learning is becoming more prominent due to the predicted job changes in the 21st century. According to the Bureau of Labor Statistics, STEM occupations are predicted to outpace non-STEM jobs. The percent of employment change over the next 10 years is 10.8%, nearly double that of non-STEM degrees at 4.9%. Not only are STEM jobs predicted to become more in demand for future employment, but these careers earn more than non-STEM jobs. The median annual wage of STEM occupations in 2021 was $95,420 where as non-STEM jobs were earning a median wage of $40,120, less than half that of STEM wages (Bureau of Labor Statistics 2022). Additionally, STEM learning increases critical thinking, problem solving, and reasoning skills beyond career opportunities and salary. However, an assessment of Standards of Learning showed Alexandria high school students performed below the state average in math, reading, and science with 35% failing math when assessing the subject proficiency distribution. Nearly 59% of underserved students are deemed proficient compared to 88% of non-underserved students. Three comments directly from the community survey highlighting these issues from residents are as follows:

- "Establishing a universities, corporate, government, ACPS and community partnerships that seed STEM initiatives like robotics teams. Not sure."
- "I think there the most pressing issue is teaching kids the importance of being good stewards of (and advocating for) natural resources found in urban environments. In an urban environment, many children are removed from nature. They don't understand where their food comes from, why all animals are important in an ecosystem, and what benefits being outside in nature or a garden, may provide. I think kids who are exposed to the food chain and nature, see leadership in action, and are given a chance to think critically and engage in their own interests, will be better informed and therefore, better citizens."
- "More after school programs and clubs provided by the city or state, especially for kids in elementary and middle school."

Future Programming to Address Community Issues

These priority issues involve an interdisciplinary approach and continuous efforts throughout the City. Each of the priority issues below provides a snapshot of the direction of Virginia Cooperative Extension (VCE) Alexandria to address each of these issues. These descriptions are not an extensive list of all the programs working to address each issue, but an outline of the core programs that have impacted Alexandria thus far and will continue to be a prominent part of VCE Alexandria in the coming years.

Issue 1: Environmental conservation

Alexandria's Natural Resources Master Plan identifies repeated needs assessments and other surveys that distinctly show that residents value parks, greenspace, and urban forestry plantings. The Natural Resources Division and Natural Lands Management Section (2012) comprises the resources inventory, management, and invasive species control functions, the urban forestry operations, and the environmental education outreach of the City. The VCE Agriculture and Natural Resources (ANR) program is supporting goals of the city by designing and offering public education about stormwater management, native plant usage in the landscape, woody plant pruning, and the maintenance of a large demonstration garden in Simpson Park that showcases best practices of sustainable landscape management. The ANR supported Master Gardener and Master Naturalist programs serve Alexandria residents in these areas by providing training to over 500 active volunteers per year that offer over 40,000 service hours per year. The Master Gardener Help Desk (based in Arlington County, but supports Alexandria) runs daily from 9am-12pm and educates the public about the invasive spotted lanternfly and other botany-related questions.

The VCE Family and Consumer Sciences (FCS) Energy Masters convert old bulbs and water fixtures to efficient models, resulting in the prevention of greenhouse gasses in the atmosphere. Volunteers partner with housing agencies to educate residents on efficient energy consumption to save them money and better the environment. Additionally, youth education programs through 4-H, Junior Master Gardeners, and Master Food Volunteers teach youth about the importance of native plants, minimizing food waste, and eco-friendly projects.

Issue 2: Local, high quality food systems

Providing local, high quality food systems is an interdisciplinary issue within Virginia Cooperative Extension Alexandria. Food systems are tied to climate, environment, financial resources, and community education. Improving overall health is directly linked to improving food systems. The VCE Family and Consumer Sciences (FCS) program trains Master Food Volunteers (MFV) in basic nutrition, meal planning, budgeting, cooking techniques, food safety, and working with diverse audiences to extend this educational knowledge to the community for improving the local food system. Volunteers partner with ALIVE, Christ Church, Department of Recreation, Parks, and Cultural Activities, Alexandria City Public Schools, and affordable housing providers to assist with health fair displays, conduct food demonstrations (including at farmers' markets and food pantries), teach cooking and nutrition classes, and participate in Plot Against Hunger produce bagging. Additionally, FCS Master Financial Education volunteers provide financial education, coaching, and resources on budgeting (including budgeting for groceries), SNAP, debt management, and savings strategies.

Master Gardeners work to deliver gardening resources in varies facets to provide local, healthy foods throughout the City, as noted above under "environment conservation." Alexandria 4-H also provides educational programs focused on gardening, healthy living, and civic engagement to youth through partnership with recreation centers and schools, in addition to 4-H clubs available to all youth throughout the city regardless of other affiliations (school, neighborhood, etc.). The Alexandria Cloverbud Club started with teaching young children (ages 5-11) about nutrition, physical activity, and healthy living through the guidance of positive adult role model volunteers.

Issue 3: Youth STEM literacy

Virginia Cooperative Extension addresses STEM literacy through several avenues. The VCE 4-H program focuses highly on STEM education through partnerships with the Alexandria City Public School system by providing STEM curriculum directly in the classroom, participating in STEM education nights, and hosting the

embryology program, which uses experiential learning to teach developmental biology. 4-H also partners with recreation centers to provide curriculum to their youth throughout their school year and summer programs, in addition to participating in community engagement programs. The Jerome "Buddie" Ford Nature Center, a part of the Park, Recreation, and Cultural Activities Department, partners with the Alexandria Nature and Animal 4-H Club, to host and educate youth members about wildlife, nature, and the environment, while also providing life skills and mentorship, in a low-cost setting with positive role model volunteers. Additionally, the Virginia Tech Innovation Campus partners with Alexandria 4-H to provide free engaging STEM curriculum to community youth through educational programs.

Other VCE programs incorporate STEM learning throughout the City. The Master Junior Gardeners provide education to youth community members in learning about urban gardening, which involves knowledge in botany, pesticides, weather, and entomology. Youth also volunteer with VCE Energy Masters to help convert old bulbs and water fixtures to efficient models, resulting in the prevention of nearly 316 metric tonnes of greenhouse gas emissions (equivalent to the greenhouse gases released by 53 average US homes). STEM literacy is a prominent issue being addressed by VCE Alexandria and will continue to be a priority issue in the coming years.

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