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ARLINGTON  
COUNTY

# RECOMMENDATIONS FOR A FOOD ACTION PLAN



# Recommendations for a Food Action Plan

*Urban Agriculture Task Force Report to the Arlington County Board*

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## **Arlington County Board - Charge to the Task Force**

### **ARLINGTON URBAN AGRICULTURE INITIATIVE**

#### **Promoting agriculture in an urban community**

**May 22, 2012**

**Purpose:** To research best practices in sustainable urban agriculture policies, and programs and make recommendations to support, expand and integrate Arlington's existing urban agriculture efforts consistent with our community values and adopted Vision Statement:

*"Arlington will be a diverse and inclusive world-class urban community with secure, attractive residential and commercial neighborhoods where people unite to form a caring, learning, participating, sustainable community in which each person is important."*

**Background:** Arlington County has an established commitment to promote the values of personal health, social equity and environmental sustainability. Many food-related programs and activities have been developed over time, including farmers' markets, community gardens, urban agriculture education and awareness, and a strong local food pantry. As our community and the world around us face increasing challenges of hunger, obesity and climate change, we need to expand our efforts and develop a more comprehensive, coordinated approach to growing, distributing and accessing healthy food.

**Goals:** The Task Force work should be framed by the following goals:

- **Promote Community Wellness** - by expanding the availability of low cost, nutritious food and nutrition awareness, thereby reducing hunger and obesity in the community;
- **Promote Environmental Sustainability** - by increasing locally grown food, reducing transportation costs, promoting composting, and exploring other food-related environmental sustainability strategies; and
- **Enhance Education and Learning** - by exposing people to the origins of food and better connecting them to the land.

**Tasks:** The Task Force would

- Develop an inventory of existing programs/activities and identify critical gaps
- Research best practices and investigate issues concerning food security, health and fitness benefits, food and zoning ordinance changes and food transfer infrastructure

- Identify the pros and cons of bringing to Arlington urban agriculture programs not currently available (e.g. rooftop gardens, container/window gardening, food carts with local food, land exchanges, demonstration gardens/farm, backyard hens, backyard sharing)
- Propose a Food Action Plan that integrates existing and proposed urban agriculture policies and programs
- Identify possible public and private sector partners

**Task Force:** Establish an ad hoc Arlington County Urban Agriculture Task Force that would complete a Food Action Plan containing recommendations to the County Board within 12 months. The recommendations should be balanced with other community goals, such as the need for open space.

The Task Force would have 19 members appointed by the County Board from the following stakeholder groups:

- Non-profits
- Arlington Public Schools (APS)
- Healthcare providers
- Restaurateurs/Caterers
- Faith-based community
- Commonwealth and County programs
- County Board Advisory Commission (Parks & Recreation, E2C2, Planning, Commission on Aging)
- Citizens at-large
- Arlington County Civic Federation
- Tenant-Landlord Commission

Primary staff to the Task Force would be from Arlington's Department of Parks and Recreation, with support from appropriate County departments and programs (CPHD, AED, DES, Libraries and DHS), and the Virginia Cooperative Extension.

Liaisons – individuals or groups who will receive information and be invited to attend meetings but they would not be formal participants in the task force.



# **Executive Summary**

In Arlington, we are fortunate to live in one of the most affluent, most educated, most progressive communities in the United States. Over the years, our community and our leaders have embraced policies that have enabled us to achieve an environmentally-friendly, sustainable way of life – the smart growth, transit-oriented development for which Arlington is known.

It is time to embrace a new set of policies to take Arlington's commitment to sustainability to the next level. Just as the Community Energy Plan is poised to set Arlington on a path toward energy security and reduced greenhouse gas emissions, we need a comparable plan to ensure that our community remains healthy and sustainable.

Healthy, sustainable communities require healthy, sustainable food systems.

Food access is not simply an individual health issue but also a community wellness issue. A robust regional food system can ensure the health of the local economy, environment, community, and residents.

To ensure the future of Arlington's health and nutrition, we must address a number of interlinking factors, including the need for locally produced, quality food for a variety of consumers – ranging from the most vulnerable in our community to those who simply wish to embrace a healthier lifestyle. For example, in our public schools, 32% of students receive free or reduced-fee meals. Even for those not receiving assistance, the nutrition habits of our children are not what we would hope: in 2007, 63% of Arlington's students ate less than one serving of fruit per day, and 23% were overweight or at risk for obesity.

In January 2012, the Arlington County Board developed a citizen task force to examine Arlington food systems and devise a Food Action Plan specifically tailored to the needs of our semi-urban community. The Urban Agriculture Task Force has identified nine recommendations (in priority order).

## **Recommended Priorities**

### **A. Ensure institutional and regulatory support for urban agriculture through local government tools.**

1. To continue to implement the UATF mission going forward, the County Board should establish and appoint a permanent Commission on Urban Agriculture, with staff liaison and similar structure to other County advisory commissions.
2. The County should perform a comprehensive review of all County planning documents to ensure that urban agriculture and a sustainable food planning are integrated in operative documents as they are modified, renewed or produced, ranging from the County's Comprehensive Plan to General Land Use Plan, Sector Plans, Revitalization Plans, Neighborhood Conservation Plans and the Zoning Ordinance. The General Land Use Plan (GLUP) defines the overall character and location of various land uses throughout the County and serves as the primary guide for both stakeholders and the County in development decisions. A range of land use categories with a range of densities and typical uses is provided, including residential, commercial and industrial, public and semi-public, office-apartment-hotel and mixed use.

### **B. Increase fresh local food production and expand distribution to enhance healthy eating and food security.**

3. Expand the availability of community gardens, urban farms, and other urban agriculture initiatives by identifying additional sites across the County.



4. Strengthen the already-robust Arlington's Farmers' Markets network by (a) facilitating use of SNAP (Supplemental Nutrition Assistance Program) benefits at all market locations and (b) supporting the creation of a permanent covered year-round Farmers' Market.
5. Encourage the establishment of a local food hub including an online option to match food producers, distributors and consumers.
6. Replicate the Crystal City BID (Business Improvement District) model for community-supported agriculture (CSA)/farm-to-consumer agriculture.

**C. Prioritize education and learning of best practices in urban agriculture topics to promote access to safe, nutritious, culturally appropriate and sustainably grown food.**

7. Leverage the expertise and talent of our libraries, public and private primary and secondary schools, colleges and universities, and adult education to bring healthy eating and urban agriculture education to Arlington residents of every age and residential context.
8. Ensure that urban agriculture education focusing on Arlington school children is given top priority in any adaptive reuse or repurposing of the Reeves historic farmhouse.

**D. Implement an environmentally sound and effective food waste and recycling system while increasing healthy soils.**

9. Initiate a municipal composting system to ensure an effective and ecologically appropriate disposal, reuse, and recycling system for yard waste and other organic materials.

## **Introduction: Why a Food Action Plan?**

Like air, water, and shelter, food is essential for life and plays a central role in our health, economy, and culture. Healthy, sustainable communities require healthy, sustainable food systems. The health of our food systems may be influenced by many factors including a community's food production, processing, distribution, consumption, and waste recovery policies and practices. Food access is not simply an individual health issue but also a community wellness issue. A regional food system is an underlying factor in the health of the local economy, environment, community, and residents. According to the Seattle Community Food Security Coalition, "It touches upon every household, every community and virtually every city agency. Food is as vital a public need as water, power, transportation, or housing, yet has been largely invisible from municipal policy considerations as such."

The demand for locally produced, quality food is increasing on a national level. In a survey conducted in 2011 by the National Grocer's Association, 85% of respondents said they chose a store based on the offering of local food products. The restaurant industry found that an increasing demand for locally produced foods was the #1 trend of 2011. Unfortunately, local production levels for these outlets as well as institutions such as hospitals, school systems, and universities are not able to meet the demand.

Agriculture and food production in Virginia is a key element in the State economy, directly providing 357,000 jobs. Households in the state spent \$19 billion per year on food in 2011. There were 200 farmers market and 135 CSA's in 2009. Here in Arlington we have seven farmers markets. At one market alone, there is an average of \$2,000,000 in sales each prime season, not factoring in the additional economic impact of bringing shoppers to the area who stop for coffee, ride the metro, pay to park, attend the adjacent craft market, and then lunch at local restaurants. As many as 4000 people attend the busy weekend markets during the summer season. Demand for local food production is also illustrated by the 200+ new applicants each year for the 225 community garden plots. These gardens experience a turnover rate of no more than about 10% each year.

Arlington has been fortunate to have been less affected by economic stresses in recent years, but even so approximately 8.3% of District 8 residents or almost 60,000 people in 2012 were considered food insecure, and in Arlington there were 4,440 households receiving Supplemental Nutrition Assistance (SNAP). In our public schools, 32% of the children participated in the free or reduced fee lunch program. Even for those not receiving assistance the nutrition habits of our children are not what we would hope: in 2007, 63% of public school students ate less than one serving of fruit per day, and 23% were overweight or at risk for obesity.

In January of 2012, the County Board began appointing a Citizen Task Force to examine the food systems in Arlington, and to devise a Food Action Plan specifically tailored to the needs of our semi-urban community. The Urban Agriculture Task Force met first in April, 2012, to begin looking at the problem from many angles, from the needs of individual citizens, and expanded to the entire regional food shed.

The overall objective of a Food Action Plan would be to promote health and quality of life through integrated, comprehensive food and nutrition policy and programs in Arlington County. The benefits of increasing the amount and distribution of locally grown food, especially vegetables and fruits include: environmental, social, economic and health benefits. A policy which advocates sustainable food production, equitable distribution, wide access and increased consumption of vegetables and fruits is a concrete way of improving health for all residents of the County. The goal is to enhance availability and access, and reduce food insecurity. This will also improve equity, promote local sustainability, empower vulnerable groups, reduce social and health problems, and promote social justice while simultaneously improving nutritional intake.

### **History of Agriculture in Arlington County**

Land used now for homes, schools, churches and soccer fields were working farms until the mid-1950s. In the 18th, 19th and into the 20th century, the land which is now Arlington County was a rural, sparsely-populated area. Corn, livestock, dairy, and timber were primary sources of income for farmers in this area. In the 1860s, more than 15,000 acres of Arlington (23 out of 26 square miles) were under active farm management. At the beginning of the 1900s, there were 379 farms in Alexandria County, many of which were located on land now known as Arlington County. This number had decreased to 96 farms by 1910.

The United States Department of Agriculture Experimental Farm was established on 400-acres in Arlington in 1910 and was located on land currently occupied by the Pentagon and Ronald Reagan Washington National Airport. Known as the “Ellis Island” of agriculture, the Experimental Farm imported many food crops from other countries for use here in the United States and scientists researched disease agents and other threats to agriculture. Some of the research in food preservation occurred here as well.

When Arlington County became a self-governing jurisdiction in 1920, there were just over 50 farms that actively managed 2,733 acres of land. By 1925, there were 49 farms in Arlington County actively managing 1,755 acres of land (US Department of Commerce, 1927. pp. 12-13, 22-23). By the middle of the 20th Century, farmland in Arlington had reduced to 433 acres of land, operated by 24 individual farms. Advances in the preservation of milk and milk products were occurring in the same time period. Arlington County farms began a rapid conversion to dairy cows, as milk products could now be safely transported farther distances from their source (Landry, 1985 pp. 23, 26). Of the remaining farms, only two original farmhouses remain intact today. The Reeves estate has been dedicated as a local historic district.

The arrival of the electric railroad at the end of the 19th century began the transformation of Arlington from a rural farmland to a commuting suburb (Traceries, 1996 1; 13; 15; 27-28). While several factors may have led to the decline in agriculture in the county, many farms finally ceded to the expanding land needs of war efforts in the 1940s. Additionally, the automobile transformed the opportunity of residents to travel, broadening their ability to access resources from distant communities. An increase in the ability to save food through canning and other preservation techniques also reduced the need for locally grown food.

### **Population of Arlington County**

Arlington had an estimated population of 212,800 on July 1, 2012, reflecting a 12.3% increase since 2000. It is among the most densely populated jurisdictions in the country with a population density of 8,248 persons per

square mile and a forecasted 2040 population of 252,400. (AC Profile 2012, Fall Update [http://www.arlingtonva.us/departments/CPHD/planning/data\\_maps/profile/file87507.pdf](http://www.arlingtonva.us/departments/CPHD/planning/data_maps/profile/file87507.pdf)). Arlington's population is racially, ethnically and culturally diverse. According to the 2010 Census about 36.0% of Arlington's residents were Hispanic/Latino, African- American, Asian or multi-racial. Arlington County public school children speak 98 languages and hail from 126 countries. Arlington residents are among the most highly educated in the nation. In 2010, 70.2% of adults age 25 and older had a bachelor's degree or higher and 36.7% had a graduate or professional degree.

### **Obesity as a Health Indicator in Arlington County**

The number of overweight and obese people in a population is used by leaders and public health professionals as a key indicator of the health of a community. Nationwide, statewide, and locally Americans have become dramatically heavier over the last thirty years. Rates of adult obesity have doubled since 1980, and rates of childhood obesity have tripled. Virginia is tied for the fifteenth worst rate of adult obesity in the nation.

In Arlington, more than one-half of school children average less than one serving of fruit per day and half get inadequate exercise (2010 Youth Risk Behavior Survey). Preliminary results from a recent assessment of incoming kindergartners indicates that more than one quarter are already overweight or obese, with another quarter nearly overweight. Statewide, this rate is even higher in low-income two, three, and four year-olds. The vast majority of these young children will become overweight and obese adults.

Increased weight causes high blood pressure, heart disease, stroke, diabetes, sleep apnea, and contributes to a number of cancers. At current rates of obesity, more than one third of children will develop diabetes. Nationally, more than one-quarter of health care costs are now related to obesity.

### **Current Health Improvement Efforts in Arlington County**

In 2009 Arlington County published Strategies for Building a Healthier Arlington which included gardening (<http://www.arlingtonva.us/departments/HumanServices/PublicHealth/mapp/MAPPDocuments/file68225.pdf>). Many Arlington public and private agencies are working together to help promote a healthier community - including the establishment of FitArlington to coordinate providers and information. In 2010, the County was awarded a three-year ACHIEVE grant and initiated the Community Health Action Response Team (CHART) and an additional grant for Healthy Eating and Active Living (HEAL). These projects focused on: active recess, healthy vending in Parks and Recreation buildings; smoke-free parks; establishing seven community gardens in affordable housing complexes, childcare provider training and using the Mighty Moves/Food Friends curriculum.

In 2012, the County through FitArlington received a \$74,000 grant from the Virginia Foundation for Healthy Youth to enable the County to focus on building a coalition to address childhood and adult obesity, the Healthy Community Action Team (HCAT), and to fund several projects including establishing seven more community gardens. Several Master Gardeners and Master Food Volunteers are to be trained and mentored to work on-site with clients in community gardens.

### **Environmental Sustainability in Arlington County**

Implementing urban agriculture programs requires careful consideration and planning to balance the competing demands on open space for recreational needs, native plantings and agricultural space. This is further discussed below under "Commercial Urban Agriculture - Integration into Commercial Development". The County is pursuing several other sustainability efforts. The Arlington Initiative to Rethink Energy (AIRE), started in 2007, now coordinates energy and sustainability efforts within the Department of Environmental Services. The County is also in the process of implementing an energy policy with ambitious goals. A study was recently completed on the Urban Tree Canopy. The County also conducted a well-received Inventory of Natural Resources and has developed a Management Plan for Natural Resources. These studies set a precedence in the County for a more strategic and planned approach to assessing and planning food policy and urban agriculture. The Task Force's exploration of urban agriculture and food policy in the County is set in the context of the General Land Use Plan (GLUP) and the already existing County Departments and Commissions, such as the Park and Recreation Commission and elements of the Comprehensive Plan, Zoning Codes and regulations.

## Food Accessibility and Food Production in Virginia

The Virginia legislature recently passed a resolution declaring October to be Urban Agriculture Month in Virginia. A statewide plan for addressing the state's challenges in maintaining farms and providing healthy foods to residents was issued recently. The *Virginia Farm to Table Plan (Virginia Farm to Table: Healthy Farms and Healthy Food for the Common Wealth and Common Good, a Strategic Plan for Strengthening Virginia's Food System and Economic Future, 2012*, produced under the leadership of the Virginia Tech College of Agriculture and Life Sciences) provides a statewide view of the state's food system and economic future including the needs of producers and farmers and of consumers. The key tenet is that "quality food should be affordable and accessible to everyone in Virginia regardless of economic means." The complexity of a community-based food system is illustrated in the following diagram from that report:



## Urban Agriculture Task Force Methodology

The Urban Agriculture Task Force (UATF) was formed in March 2012 by the Arlington County Board. Members of the Task Force represented various stakeholder groups within Arlington County. County government participation included a liaison member, as well as other county resource personnel.

The goals of the UATF focused on the County's approach to a more comprehensive, coordinated plan for growing, distributing and accessing healthy food which strengthens our local Arlington food system and economic future. The UATF was charged with developing recommendations to the County Board for a Food Action Plan.

The Task Force met monthly beginning in April 2012, with additional meetings scheduled as needed. All meetings were open to the public. Four work groups were formed to specifically research and form recommendations in the following areas:

- Institutional Support Services
- Food Production Systems
- Food Distribution
- Soil Creation and Composting

These work groups met as needed and produced reports and recommendations on their assigned focus areas. Presentations were given at Task Force and Work Group meetings by various County staff and other experts, and site visits were made to gain more understanding of urban agriculture issues and best practices. Members also researched urban agriculture issues, technologies, innovative growing methods, and best practices using Arlington County Library collections, interviews, presentations, the internet and other sources.

Public input was solicited in various ways. The July 2012 meeting focused on the issue of backyard hens, with presentations from organizations supporting and opposing allowing hens on more properties in the County. An online forum on Open Arlington solicited input on urban agriculture issues and priorities. Members of the Task Force met the public at a small booth at the August 2012 County Fair, and attended each of the farmers' markets. In January 2013, three public informal "drop-in" Community Conversation were held at libraries around the County. Presentations were also given to the Arlington Committee of 100, the Arlingtonians for a Clean Environment Annual Board Meeting, the Latino Round Table (Mesa Redonda Latina), to neighborhood civic associations and other school and community organizations.

The work groups then compiled reports and recommendations that were presented to the entire task force for review and consensus prior to inclusion in the final report. A total of 27 recommendations were made. This list was further refined into a list of nine top priority recommendations.

## How to Use this Document

The Report of the Arlington County Urban Agriculture Task Force (UATF) is designed for users to have ready access to Priorities and Recommendations at the level of detail they desire.

- The Table of Contents provides a guide to the topics discussed. If accessed online, the reader will be taken to the text of interest by first clicking on a TOC item, and then pressing Ctrl + Left Click.
- The Executive Summary starts with a list of Priorities, a quick view of the recommended first action steps for the County Board to consider, based on the Charge to the Task Force provided by the Board.



- A quick view of the UATF Recommendations is provided in Appendix A – Objectives and Recommendations, and Appendix B – Minority Reports.
- Active links to relevant websites will lead online users to those sites, with most located in Appendix C - Inventory of Existing County Programs and Appendix D – Resources. Links work by first clicking on the item, and then pressing Ctrl + Left Click. Although these links have been tested prior to the release of this report, please note that over time they may become inactive and no longer work.



## **Section A: Government Commitment - Regulatory Structures and Responsibility**

**Objective A:** *To ensure institutional and regulatory support for urban agriculture through local government tools.*

### **Advisory Commission to the County Board**

In order for urban agriculture, fresh food systems and food security to thrive in Arlington County, the County needs a designated entity within its governmental structure to pursue these goals. This entity would identify priorities and recommend steps to coordinate efforts with County staff and the community at large, and facilitate implementation of related efforts. Many jurisdictions have government-appointed citizen-based bodies to oversee municipal initiatives in urban agriculture. A natural progression for Arlington's Urban Agriculture Task Force is a permanent Commission, thereby giving this important public policy area ongoing citizen leadership and direction.

#### **Recommendation A.1: Permanent County Advisory Commission**

- A.1 To continue to implement the UATF mission going forward, the County Board should establish and appoint a permanent Commission on Urban Agriculture, with staff liaison and similar structure to other County advisory commissions.

The Commission might include representatives from the gardening and food production communities, businesses and developers, food retailers or wholesalers, restaurants, Arlington Public Schools, food pantries, colleges and universities, hospitals, other interested organizations and citizens-at-large. Their role would be to establish goals and develop a strategic plan to implement the Charge to the Task Force as envisioned by the recommendations set forth in this report.

### **Review of Planning Documents**

According to the American Planning Association's (APA) November 2012 report, "Planning for Food Access and Community-Based Food Systems: A National Scan and Evaluation of Local Comprehensive and Sustainability

Plans,” just under 10% of municipalities surveyed nationally have either Comprehensive Plans, separate Sustainability Plans or “Food System” or like-named plans or components of plans that specifically address topics in urban agriculture, including Baltimore City and the City of Chesapeake, Virginia. This includes, in APA’s words, the “interlinked network of processes, actors, resources, and policy and regulatory tools required to produce, process, distribute, access, consume and dispose of food—and its connection to other urban systems (such as land, housing, transportation, parks and recreation, etc.).” Arlington County should examine the appropriateness of this growing planning phenomenon to our County.

The General Land Use Plan (GLUP) defines the overall character and location of various land uses throughout the County and serves as the primary guide for both stakeholders and the County in development decisions. A range of land use categories with a spectrum of densities and typical uses is provided, including residential, commercial and industrial, public and semi-public, office-apartment-hotel and mixed use. Consideration should be given to a separate designation of “food producing land,” or “community agriculture” or similar appellation for parcels meeting certain criteria.

The recommendations contained in this Task Force Report are compatible with existing County planning documents, which documents should be examined with an eye towards cementing and strengthening the County’s commitment to urban agriculture, including but limited to the following areas:

- Arlington’s Affordable Housing Goal #4 is to “Ensure that consistent with Arlington’s commitment to sustainability, the production, conversion and renovation of committed affordable housing is consistent with goals set by the County to reduce greenhouse gas emissions in Arlington County.” Incentivizing the provision of community gardens with respect to such affordable housing through amendment to the Affordable Housing Ordinance, Zoning Ordinance, the Special Exception Site Plan Process or via project-specific action would enhance the County’s goals of sustainability and reduction of greenhouse gas emissions, in addition to augmenting tenant food security and good health.
- Arlington has a number of Special Planning Areas throughout the County to which detailed urban design guidelines and open space directives are applicable, ranging from immediate Metro-specific areas to the new North Tract Special Planning District. While the designation of food-producing land may not be feasible in some areas due to cost and certain land use constraints, the inclusion of such land for the North Tract as it becomes fully developed may be particularly appropriate given the published County goal to “redevelop this longtime industrial area into a green urban oasis that will be a model of effective environmental reclamation and community-oriented reuse.”
- The County adopted an Open Space Policy in September 1992 to “preserve, enhance and expand existing open space assets, and protect important threatened natural and historic resources.” The County should specifically recognize land for food production as an acknowledged and sanctioned use in both an adjusted Policy statement and in the pending Open Space Master Plan

## **Recommendation A.2: Review of County Planning Documents**

- A.2 The County should perform a comprehensive review of all County planning documents to ensure that urban agriculture and sustainable food planning are integrated in operative documents as they are modified, renewed or produced, ranging from the County’s Comprehensive Plan to the General Land Use Plan, Sector Plans, Revitalization Plans, Neighborhood Conservation Plans and the Zoning Ordinance. The General land Use Plan (GLUP) defines the overall character and location of various land uses throughout the County and serves as the primary guide for both stakeholders and the County in development decisions. A range of land use categories with a range of densities and typical uses is provided, including residential, commercial and industrial, public and semi-public, office-apartment-hotel and mixed use.

## **Participation in Regional Solutions**

For a local food system to work in Arlington, regional connections must be made between rural farmers, food hubs and produce aggregators, extension agents, planners and land-use professionals, wholesalers and retailers, consumers and government officials.

Because of Arlington's small footprint and lack of available farmland, food security for our County is tied to land-use planning in the District of Columbia, Virginia, Maryland, Delaware, Pennsylvania, and the health of the Chesapeake Bay. The ability of Arlington County to receive locally grown and harvested products depends on the continued availability of farmland beyond our borders. It is also tied to linkages with farmers in the region. Dialogue among urban and rural stakeholders will allow Arlington to help farmers organize and sell produce more efficiently and allow residents, grocers and institutions the means to access their harvests.

### **Recommendation A.3: Regional Involvement**

- A.3 Ensure participation by the Arlington County Board, staff and the community as leaders in regional conversations and strategies related to sustainable urban agriculture and food policy. Political leaders and decision-makers in the Washington region need to come together to formulate a strategic agricultural support plan and agree upon steps and measures that will help sustain local agriculture and preserve area farmland through the 21st century.
1. Work with the Metropolitan Washington Council of Governments (COG), the State of Virginia, universities, and others to promote a regional approach to preserving farmland and enabling farmers to grow and deliver local produce in the quantities required, including local implementation and participation in, where appropriate, the 2011 Virginia Farm to Table Plan and via membership in the Virginia Food System Council. Another resource is the Regional Agricultural Workgroup, where the mission is to protect and promote agriculture in the greater Washington region.
  2. Expand lobbying efforts that showcase the importance of and need for sustaining local agriculture, through the assistance of local and state officials and citizen groups.
  3. Explore land banks, land trusts, land leasing and alternative holding institutions, such as faith-based or non-profit corporations, as avenues to preserve urban growing spaces.
  4. Support and work with area jurisdictions to preserve area farmland in the metropolitan Washington foodshed.

## **County Zoning and Regulations for Food Sustainability**

In general, the Arlington County Zoning Code should support food production within the County by recognizing that gardens and food plants within landscaped areas serve a positive role in ensuring sustainably available fresh foods.

### **Recommendation A.4: County Zoning and Regulations**

- A.4 Review and revise the Arlington County Zoning Code and regulations to facilitate urban agriculture.
1. The Arlington County Zoning Code should foster food production within the County by recognizing that gardens and food plants within landscaped areas and on buildings serve a positive role in ensuring sustainably available fresh foods in the future.
  2. Revise Zoning Code language to specifically allow for food plants in viable locations in residential yards without restriction (e.g. front yard and berm gardens).
  3. Enhance zoning and planning policy to allow and encourage growing on roofs, parking garages and other public structures and surrounding property, as well as in parks, and "orphaned" sites for gardens and common farms.

4. Review zoning regulation limitations on fences and other structures to identify changes that would allow structures to enhance food production and the security of produce, in line with pedestrian and vehicular safety.
5. Revise zoning regulations related to site plans regarding requirements for trees and shrubs to encourage food producing plants. The list of trees and shrubs available for developers issued by the office of the Zoning Administrator would be likewise revised.
6. Provide new tax incentives that promote local farming and related support services. This could include new tax deductions for County-sponsored farming assistance programs and initiatives.
7. Explore usufruct regulations, defined as allowing for public harvest of food grown in public areas such as in parks or from a tree that that overhangs a sidewalk or other public land. A restriction could be added that, if the food plants are grown for purposes of selling or of donating to a food pantry, usufruct does not apply.
8. Zoning Code height restrictions on building and parking structures could be modified to allow the addition of rooftop greenhouses for food production, assuming the structure offers appropriate structural support.
9. To enable the operation of fresh produce mobile markets that would only dispense fresh local foods, the code could be amended to define and specifically address such markets. Additionally, explore allowing mobile markets to serve prepared food to demonstrate how certain fresh foods could be prepared while addressing food safety requirements.

## **Integrating Commercial Development and Urban Agriculture**

Arlington County is uniquely positioned to be a leader in the urban agriculture movement by building on the factors that have generated Arlington's economic success, such as the commercial development that has directly resulted from Arlington's proximity to Washington, DC. Arlington County has in excess of 35 million square feet of commercial office space, which exceeds the downtowns of Los Angeles, Dallas, Denver, Seattle, or Atlanta. While the outlook does not project a strong sustainable growth in commercial development and construction in the short term, this time can be used to focus on how to take advantage of opportunities to integrate sustainable activities and urban agriculture into Arlington's commercial developments.

The Arlington Initiative to Rethink Energy (AIRE) and the Community Energy Plan project, including a Community Energy Implementation Framework (CEIF), seek improved energy efficiency and reduced emissions. The County could enhance the Green Building Initiative included in these efforts by providing urban agriculture incentives. "Green Building" is a loosely defined collection of land-use, building design, and construction strategies that reduce the environmental impacts that buildings have on their energy needs and their surroundings. Traditional building practices often overlook the interrelationships within a building, and its components, surroundings, and occupants.

Arlington County has adopted the US Green Building Council's Leadership in Energy and Environmental Design (LEED™) Green Building Rating System as a way to measure the energy and environmental performance of buildings in the County. The LEED™ rating system allots points within seven specific categories for environmentally beneficial building materials and design, in categories such as site location, water efficiency, energy, and the atmosphere, materials and resources, and indoor environmental quality. LEED™ is the easiest way for any professional, business, or organization to master green building standards and practices.

Currently Arlington County encourages increased green building practices by:

- Requiring all site plan applications in Arlington County to include a completed LEED™ scorecard. The scorecard allows the developer to assess the options for including green components in a project. It

also allows the County to measure a project's overall performance and to collect data on the environmental status of all site plan buildings in the County.

- Offering a County bonus density incentive to developers who design green buildings as outlined by the LEED™ rating system. The developer may be granted additional density up to 0.25 floor area ratio (FAR) and/or additional height up to three stories if the project meets the silver LEED™ rating or higher.

### **Integrating Urban Agriculture in Arlington County's Green Building Program**

Arlington's Green Building Initiative could integrate urban agriculture priorities and assist developers' in achieving gold and platinum ratings by using some of the most underused credits, which are also the most important credits to LEED™. For example, adding urban agriculture components to new development rooftops could help a building achieve the 42% improved energy performance credit. Building a level of urban agriculture above a parking garage (e.g., Kettler Sportsplex) or rooftop qualifies for the "reuse of existing building elements credit" and potentially qualifies for the "reuse 95% of a building exterior" credit. Each of these credits are regarded as the highest priority and most important credit, but fewer than 10% of all new LEED™ certified buildings use these according to a recent *USA Today* study analyzing US Green Building Council records. The goal moving forward is to incentivize developers and owners to utilize credits that have the greatest impact. Arlington has an opportunity to distinguish itself within the LEED™ community by rewarding the quality of LEED credits so that its incentive program will reflect priorities.

Arlington County should evaluate how it could further maximize the large volume of commercial rooftops and "air-rights" opportunities to generate sustainable urban agriculture. An example is found at the Ballston Common Mall and the partnership between Arlington County, (owner of the parking garage); and Forest City, (owner/developer of the mall). To evaluate the economic feasibility of locating an asset such as the Washington Capitals (Caps) practice facility at the mall, Arlington County conducted structural engineering tests to evaluate the ability of the structured parking to accommodate the additional new sports complex above its top floor. Arlington County as owner made the parking structure available, allowing the Caps to locate within the urban area and in close proximity to downtown where their games are played. This also allowed the Caps ownership the use of a site with no acquisition costs and only nominal expense resulting in a win for the owners of Kettler at Capitals Ice Complex and a winning scenario for Arlington County and Forest City.

Throughout Arlington County there are similar structures that could be used to achieve the same result such as the structured parking at The Fashion Center at Pentagon City (Pentagon City Mall) owned by Simon Malls. Arlington County could create a tax increment financing tool (TIF, defined below) whose funding could be used to pay for green building priorities and urban agriculture. Arlington County could have structures evaluated as well as determine the size and use that could be accommodated and the TIF structure necessary to make the improvements economically feasible. The funding would come from taxes that otherwise would have contributed to Arlington County revenues so that such an accommodation would not adversely impact the County's economic condition. Arlington County will likely be the driver of such an innovative approach by first evaluating its own assets for consideration such as the rooftop of the Thomas Jefferson Middle School and Community Center and the Arlington County Schools in general, especially those under construction. The locations which have land that could accommodate such agricultural activities and thus demonstrate a record of achievement could be used as examples for potential commercial building owners to consider and use as a model.

### **Recommendation A.5: Commercial Buildings**

A.5 Encourage and incentivize developers to include urban agriculture elements in their site plans. Establish a Commercial Urban Agriculture Building Initiative by enhancing Arlington County's Green Building Program to incentivize developers to include urban agriculture features in the site plan's application section with the scorecard for Leadership in Energy and Environmental Design (LEED) elements. This application form is used by County staff to assess the potential to provide bonus density incentives. These features could include such items as the use of rooftops for growing food and for food-production greenhouses, as well as the use of grounds and vertical spaces (e.g. sides of buildings) to grow food.

1. Consider a TIF (Tax Increment Financing option) or other financing mechanism to facilitate agricultural projects on commercial properties. A TIF is a method to use future gains in taxes to



subsidize current improvements, which are projected to create the conditions for said gains. The completion of a public project often results in an increase in the value of surrounding real estate, which generates additional tax revenue. Sales-tax revenue may also increase, and jobs may be added, although these factors and their multipliers usually do not influence the structure of a TIF. For the purposes of the Green Building Initiative and urban agriculture, this financial model holds promise for creating the funding necessary to undertake such activities.

2. Interface with the Northern Virginia Apartment Association, Board of Realtors, BRAVO, Building Association and other residential and commercial real estate groups to encourage integration of rooftop gardens and land gardens in both existing and new rental, condominium and single family home developments, as well as in office buildings and other commercial venues. Facilitate the regulatory process for business related to Arlington County urban agriculture.
3. Formulate other incentives for property owners and developers to establish community food gardens or otherwise allow food production.
4. See also Recommendations D.7, D.8 and D.9 for related items.

## **Section B: Education and Communication**

**Objective B:** *To provide the information and organizational resources to enable Arlington residents, institutions and businesses to implement sustainable fresh food availability and food production by enhancing existing programs and facilitating others.*

### **Providing Information and Education Resources**

Arlington County enjoys a strong range of public and private educational opportunities. While some of these are publically operated, such as libraries and Arlington Public Schools, others are provided by non-profits and organizations. The Beekeepers Association of Northern Virginia is an example of a non-profit association that offers education and mentoring to others interested in beekeeping. The Reevesland Learning Center and its LAWNS 2 LETTUCE 4 LUNCH program are examples of current activities enhancing learning about gardening and children's appreciation of the source of their foods, as well as community building.



#### **Recommendation B.1: Non-Profits, Libraries and Educational Institutions**

- B.1 Encourage non-profit organizations, libraries, community centers, and educational institutions to offer courses and mentoring tailored to urban agriculture, such as general gardening, operating common farms, plants suitable for a warming climate, intensive planting techniques to grow more food in a small space, rooftop growing techniques, aquaponics, and other emerging techniques.

1. Enhance the current efforts at County libraries and community centers to act as education hubs and demonstration sites for these and other sustainability efforts.
2. Encourage increased course offerings by educational institutions related to food gardening, food preparation and preservation, and composting. APS, APS Adult Education, Northern Virginia Community College, George Mason University, Marymount University and Virginia Cooperative Extension have demonstrated that they are potential partners in research and information dissemination.
3. Facilitate involvement by non-profit organizations through training in organizing and grant writing and coordination and networking to maximize their impact.
4. Coordinate with non-profit organizations seeking to provide learning opportunities and demonstration sites for best practices in food production. An example is the proposal, currently in a "Request for Information" process with the County, to enable the County-owned historic Reevesland farmhouse in Bluemont Park to be rehabilitated and re-opened as a non-profit learning center with community-school collaboration.
5. Establish and enhance demonstration gardens in Arlington County for research on growing in our specific urban environment conditions and for public education.
6. Encourage collaborative neighborhood/schools initiatives to involve the community and students in growing and eating healthy foods.
7. Develop public acceptance for food plants and gardens instead of traditional formal landscaping approaches. Be aware of the need to work with perceptions by neighbors or the general public that vegetable gardens are "messy" or otherwise undesirable as opposed to formal landscaping.
8. Collaborate and partner with community organizations, i.e., AFAC, Cooperative Extension, and BRAVO, to expand educational activities and outreach.
9. Invite the Arlington County Beautification Committee to expand its scope to include awards for food production gardens and integration of food production in landscaped areas. The Committee is a long-standing citizens group promoting sustainable landscaping and identifying notable trees.
10. Recognize the diverse ethnic groups in the county by encouraging growth of food plants common to their diet and heritage where appropriate for the Arlington County environment.
11. Promote cooking demonstrations and recipes featuring locally grown foods and food preservation techniques.

## **Enhancing Virginia Cooperative Extension Efforts**

Virginia Cooperative Extension (VCE) is part of a nation-wide program run in Virginia through a partnership of Virginia Tech and Virginia State University. VCE is also a link to many federal and state sources of information such as the United States Department of Agriculture (USDA) and Virginia Department of Agriculture and Consumer Services (VDACS). VCE educates the public on many gardening-related topics as part of a balanced approach to support natural resource management and environmental horticulture in Arlington County, including urban agriculture. It also offers the Master Gardener and Master Food Volunteer programs which train participants in growing techniques and healthy food preparation. These individuals then become volunteers to share their knowledge by conducting classes, mentoring and other activities.

### **Recommendation B.2: Virginia Cooperative Extension**

- B.2 Enhance and support the efforts of Virginia Cooperative Extension (VCE) and other appropriate resources by encouraging them to configure staff to increase nutrition and horticulture programs, with an emphasis on food production, in the following ways:
1. Augment the Master Gardener program, either within existing programs or as additional training opportunities, to include food gardening information and techniques with emphasis on those applicable to Arlington. In addition, a Master Food Gardener course could be implemented. Some specific topics could be soil testing for food plants, beekeeping, food preservation, and edible landscaping.
  2. Further coordinate efforts within VCE program areas: including Master Gardeners, Master Food Volunteers, Financial Educators, Tree Stewards, Master Naturalists, and other programs in the county.
  3. Expand availability of public access to VCE materials and resources on food production, food preparation (recipes) and food preservation, animal and poultry welfare, and natural resources management.

## Promoting Community Wellness

Arlington County's commitment to the benefits of eating responsibly is evidenced by the January 2013 launch of the FitArlington campaign to reduce childhood obesity, and directly relates to fresh foods availability. Other initiatives related to healthy, sustainable living in Arlington echo this commitment, such as recycling and reuse of waste, efficient energy usage, educational gardening programs at libraries, schools and through Cooperative Extension, and support to reduce the use of single-use water bottles. These initiatives enhance community building as well as better health, food availability and overall sustainability.

### Recommendation B.3: Fresh Foods Arlington Brand

- B.3 Create an Arlington "brand" and logo, such as "FreshArlington," to focus educational campaigns and urban agriculture programs on the health and other benefits of fresh foods produced, processed or sold in Arlington County at farmers' markets and by other food retailers.

This focal point on an Arlington "brand" would generate pride by Arlingtonians in County efforts as well as encourage individual lifestyle changes and participation in urban agriculture. The brand's logo would be:

1. Included on products produced or sold in Arlington, and at locations (farmers' markets and other retailers) where they are marketed.
2. Used by libraries, the Adult Education program of Arlington Public Schools, and other providers of education and instructional materials for gardeners, cooks and food entrepreneurs.
3. Featured in County and civic group campaigns promoting healthy eating and sustainability.

## Urban Agriculture and Fresh Food Focus on County Website

The Arlington County website has many pages useful to gardeners which have been added over time. These would be more useful if they were more easily identifiable as garden-friendly items. A reorganization of materials could better inform Arlingtonians on urban growing conditions and technologies (e.g., the local microclimates; heat and wind on rooftops). For example, Virginia Cooperative Extension (VCE) has many helpful documents which could be indexed for easy access on the County's website and combined with other resources including announcements of education and other upcoming events would greatly enhance public resources. A "Garden Chat" site could facilitate communication and exchange of resources such as garden tools and supplies.

## **Recommendation B.4: Internet Communications Tools**

- B.4 On Arlington County's website, [www.arlingtonva.us](http://www.arlingtonva.us), enhance and rename the "Urban Agriculture" area to become a tool which can direct users to related County and regional resources and to connect food growers in Arlington. This would include resources such as community gardens, yard sharing programs, Virginia Cooperative Extension resources and its programs (including Master Gardeners, Master Food Volunteers, Master Financial Educators, and 4-H Youth Development), and other volunteer events such as those sponsored by Arlingtonians for a Clean Environment or Libraries, County Solid Waste Bureau mulch and woodchip availability, small business assistance for agricultural entrepreneurs, building and operating rain barrels and composters, swapping excess crops, tools and supplies, recipes, and forums such as chat rooms and blogs.

Encourage, promote and link websites, blogs, social media presence, and "over the garden fence" forums for information exchange hosted by the County, Virginia Cooperative Extension and other organizations and individuals.

## **Arlington Public Schools - Sustainability, Education, Partnerships**

Arlington Public Schools (APS) currently enrolls approximately 23,000 students across 22 elementary schools, five middle schools, three high schools, a secondary alternative school, a technical education and career center, two high school continuation programs, and programs for special needs students. The APS Food Services Department continues to be a national leader in healthy eating through such initiatives as produce purchases from local farms within 100 miles of Arlington, whole wheat breads and rolls, biodegradable cardboard lunch trays, and onsite meals preparation at each school rather than via a central kitchen.

## **Recommendation B.5: Arlington Public Schools**

- B.5 Enhance and support the efforts of Arlington Public Schools (APS) to provide a culture of sustainable practices with regard to urban agriculture and food systems, and a framework for sustainability initiatives in strategic planning and policies, balancing educational, environmental and health and community aspects. Promote environmental and health education in the schools and support with staff training to encourage communication and sharing of best practices.
1. Encourage APS-wide coordination to communicate shared information including best management practices and techniques - as well as to improve educational outreach.
  2. Encourage APS to train staff in a broad range of environmental education through trainings and conferences.
  3. Support APS and PTA community groups such as the Arlington County Council of PTAs (CCPTA), individual school PTAs, and the APSGreenSchools group in discussion of sustainability issues.
  4. Continue to support all schools: pre-K, elementary schools, middle schools, high schools and other APS youth programs in conversations about schoolyard enhancement for outdoor learning, schoolyard maintenance, service learning and project-based agriculture education links.
  5. Encourage partnerships with stakeholders to support urban agriculture and promote wellness.
  6. Support APS in Farm-to-School programs with local farmers and in conjunction with other federal and state initiatives.
  7. Support FitArlington's work with schools and strengthen links with Arlington's Community Volunteer Network to increase community aspects of schoolyards.

8. Encourage Virginia to establish a Food Corps statewide or a similar network of adult volunteers dedicated to promoting urban agriculture and nutrition education in school communities.

For further recommendations regarding school land resources and community use see Section D.5 below on School Gardens.

## **Section C: Soils and Composting**

**Objective C:** *To protect and enhance soils in Arlington County, manage waste, water and other resources for food production, and make them available for food producers in the County.*

### **Soil Creation and Soil**

A key effort in developing urban agriculture in Arlington County will be the need to have healthy soil and a consistent cycling of soil nutrients for healthy plant growth and food production. It is common scientific knowledge that life exists as an intricate web of interconnectedness in which living organisms depend on and are affected by others. Regarding soil, life above the ground, in large part, depends on life below the ground. Thus, a crucial process in supporting plant growth comes via microorganisms in the soil. An effective urban agriculture strategy will place strong emphasis in supporting the microbes, fungi and all the life and biota necessary for healthy soil. Such a support system for the complex microbial community can be attained via composting.

Composting is a method of returning nutrients back into the soil in order for the cycle of life to continue; it is nature's process of recycling decomposed organic materials into rich soil. (<http://www.recycleworks.org/compost/index.html>). The EPA recommends a continuous cycling of soil nutrients via organic food scrap recovery and composting to supply the organic contents and soil nutrients for healthy plant growth (<http://www.epa.gov/brownfields/urbanag/steps.htm> ).

Based on the Arlington County Solid Waste Bureau residential waste audit, about 21% of the solid waste stream is yard waste and grass, while 13% is food scrap. Because there is no breakdown of the food scrap figure, a conservative estimate would be that 6% of food scrap could be composted; resulting in a potential of 27% of the waste stream to composting and soil nutrient cycling. This converts to 9,905 tons of potentially avoided disposal tons and approximately \$416,016 of avoided disposal costs, annually.

### **Recommendation C.1: Soil Building and Composting**

- C.1 Achieve a continuous cycling of soil nutrients via organic waste recovery and composting in order to supply the organic contents and soil nutrients necessary for healthy plant growth.
1. Develop a reliable infrastructure within Arlington County to enable food scrap collection from all sectors of the community; residential, commercial and government, continuing the ongoing efforts of the Arlington County Solid Waste Bureau.
  2. Process food scrap collection within the County to produce high quality compost. By keeping the material local, it will offset the current high cost of transportation to outside facilities, thus reducing greenhouse gas emissions. It will also create beneficial soil amendment for local urban agriculture efforts without the need of chemical fertilizers.
  3. Establishing a decentralized model of food scrap collection and processing is best suited to avoid a large composting facility. A grid of food scrap sources vs. urban farming locations would outline and optimize the facilities needed.
  4. Obtain services of industry experts to provide guidance to ensure all composting facilities are properly monitored to avoid problems with pests and odors and to control storm water runoff.



5. Initiate the collection and processing of plant-based food scraps with a pilot program of a small section of the county as a means to educate, promote and build the capacity for a larger scale process.
6. Facilitate an intensive commercial composting program for restaurants, hospitals, schools, and other entities providing food service.
7. Make compost from kitchen waste available to gardeners and farmers for food plants.
8. Formalize education training on composting processes and underlying technology for individual household and larger composting systems.

### **Recommendation C.2: Soils and Soil Testing**

- C.2 Facilitate providing education on soils regarding their makeup and need for remediation and enhancement.
1. Survey urban agriculture sites for potential risks of contaminants, including a thorough land-use history of the property that is to be used.
  2. Promote soil testing to determine the nutrient qualities of the existing soil and to identify any legacy metals and other soil pollutants that could contaminate food plants, especially in areas adjacent to roads and highways and on former industrial sites.
  3. Make available information on the ongoing effect of vehicular traffic on adjacent gardens (e.g. in berms, alongside highways, etc.), the distance from traffic which is safe for food production, and specifics about food plants in relation to their individual tendency to retain pollutants in edible portions of the plant.

### **Recommendation C.3: Water Harvesting**

- C.3 In conjunction with other storm water and water management policies and efforts by the County, facilitate the collection of storm water for use in food production, in residential spaces, community gardens, parks and other public spaces, and on commercial properties.
1. Examine inclusion of water harvesting systems on County buildings and at County parks, schools, hospitals and other facilities for reuse in food production and tree and landscape watering.
  2. Facilitate and encourage community education on rain barrels and cisterns.
  3. Encourage the use of water harvesting in new building construction to integrate best water management practices.
  4. Investigate the prioritization of water use during water supply emergencies in relation to food production.

### **Recommendation C.4: Gardening Tools and Supplies Reuse**

- C.4 Collect garden implements and supplies for redistribution or for lending out in a “tool library” program. This could be done at the County’s recycling facility, by a non-profit, or via a website featuring an “I need – I have” trading site or a garden chat site. VCE currently collects some small tools for community gardening programs.

## **Section D –Developing Local Food Growing Opportunities**

**Objective D:** *To increase the amount of food production in Arlington County by identifying new spaces suitable for growing food and applying innovative methods suitable to an urban setting.*

Agriculture is central to human existence, to our nourishment, livelihoods and cultures. Advances in agriculture have driven human civilizations for millennia. Currently our food is mostly grown in remote areas of the land and large amounts of resources are then spent in transporting that food to consumers. Urban agriculture represents a different model where food is grown within cities, providing local foods whose freshness brings benefits of taste and nutrition. This has as an added advantage that the consumer and the producer are geographically linked in the community.

Urban farming occurs on a variety of scales, starting with a few consumable plants in the window sill to large scale vertical farming industries. It is useful to divide these different types into three scale levels according to size, since they require different approaches: residential yards and other small gardens, community gardens and commercial growing operations. Food plants can grow in virtually any space, ranging from individual plants placed within ornamental gardens or in pots to rooftops and large plots of land.

In a dense urban area such as Arlington County with growing space at a premium, innovative growing techniques tailored to our growing conditions become critical. Innovative urban opportunities can include siting gardens on spaces rendered unbuildable because they are too small, in strips around the edge of buildings, on edges of athletic fields, around park boundaries, and even on idle paved properties that may be waiting for future development. In an urban environment several smaller spaces can be managed as one larger operation. Intensive growing methods can be employed to maximize the production per square foot of planted area. Future solutions include utilizing rooftop farms and greenhouses, vertical spaces on building exteriors, aquaponics (fish tanks with water recycled to fertilize plants) and hydroponics. Arlington County and Arlington Public Schools are themselves large property owners within the County and therefore can play a significant role for individuals and entrepreneurs wishing to grow foods in the County.

Having gardeners tending previously unused and possibly untended or invasive plant-dominated properties becomes an asset to the community due to the gardeners' very presence and their enhancement efforts. The Victory Garden movement during World War II demonstrated that many small efforts can greatly enhance individual and community food supplies and thereby quality of life. Similarly, the World Bank found that "small-scale, diverse, sustainable farms (and even home gardens) had the most potential to solve the world's hunger problems while reversing modern agriculture's devastation of our ecosystems". The World Bank's International Assessment of Agricultural Science and Technology for Development (IAASTD), launched in 2002, based this finding on a World Bank study involving 61 countries and over 400 agricultural scientists. (Washington Post, November 10, 2011, Want to feed the world? You have to think Small, by Barbara Damrosch).

### **Inventory of Spaces Suitable for Food Production**

Spaces in Arlington County, including public open space and other lands, are in high demand for use by multiple constituencies and user-groups. These spaces may be large or small, temporarily available while in transition to new development, already set aside for open space, or non-traditional growing sites such as rooftops. With the large backlog for community garden space and the increasing interest in urban agriculture in general, identifying suitable land and other growing spaces becomes a priority. For instance, there is public land throughout the county that is severely underutilized due to overgrowth of invasive plant species. Identifying and targeting these overgrown areas for repurposing would allow them to be better utilized for the public good, increasing the overall level of service to the public. The revitalization of such open space would create greater opportunities for the County and citizens to partner together to engage in urban agriculture.

#### **Recommendation D.1: Inventory of Potential Garden Spaces**

- D.1 Conduct and map an inventory of spaces within Arlington County which are viable for food production, such as spaces for community gardens or urban farms.
1. Inventory spaces under Arlington County jurisdiction.
  2. Identify other spaces viable for food gardening, working with other landholders such as Northern Virginia Regional Park Authority, schools, developers, single and multi-family residences, and non-profits and businesses with property.
  3. Assess public open space that has been overrun by invasive plant species, and thus rendered unusable for public good. This assessment should evaluate these areas for potential urban agricultural uses such as community gardens or urban farms.
    - The criteria to identify such spaces might include:
      - Ownership (public, or a willing private or business owner)
    - Existing structures and landscaping
    - Accessibility during daytime, evening and weekends to the site and to restrooms and parking, as well as safety considerations (e.g., a median strip on a busy road is questionable)
    - Access to sun
    - Access to water
    - Topography, with relatively flat sites with good drainage being most desirable
    - Space for adequately sized gardens bordering buildings, park boundaries, fenced athletic fields and similar options
    - Soil contamination considerations which may necessitate raised beds or containers (see Section C: Soils and Composting)
    - For paved sites, assess for growing in raised beds or containers
    - Plans for future use and timelines (e.g., if development is two years away, a nomad container garden could be a suitable temporary use)
    - Presence of invasive plant species, as described in D.3

## Yards and Yard Sharing

**Residential yards**, as demonstrated by the Victory Gardens grown during World War II, can yield large amounts of produce, feeding many people and at times making the difference between health and malnutrition. In addition to this section, the recommendations in Section B, promoting educational resources and mentoring, will empower more Arlingtonians to grow their own food.

Yard sharing is a growing initiative around the country and around the globe. The concept is that landowners who have yards that are not being used, and want to contribute to the availability of locally grown food either for themselves or for a larger audience, can arrange for their yards to be gardened by others. Garden sharing plots can cover many different sizes and spaces, from a small 10x10 plot to feed a family, to a much larger plot that might service a Community Supported Agriculture (CSA) business. Yard-sharing can range from an agreement where the landowner provides nothing but the space, to one where the landowner is heavily involved and intends to make a shared profit on the produce. From what can be determined, Arlington County has no restrictions on yard-sharing.

- Growing spaces may be made available by busy parents and others wanting cheaper and healthier food but who are not going to garden, and by senior citizens, those with disabilities, and commercial and institutional entities with growing space they wish to lease.
- Growers might be individual gardeners without their own growing space (e.g. residents of multi-resident buildings), farmers, and yard care companies providing food gardening installation and maintenance.
- Best practices include project and 'sharing' agreements that would outline the rights and responsibilities of each partner especially along the lines of Access, Boundaries and Expectations (ABE).

According to Patrick Hayes, an economist in a note published by Canada's Office of Urban Agriculture's *City Farmer*, "The Sharing Backyards initiative would be most effective if we could partner with local community organizations to help administer the program and champion the sharing of backyard space locally."

## Recommendation D.2: Yards and Yard Sharing

- D.2 Encourage and facilitate individual and shared food gardens in residential yards, commercial properties and other open spaces with other gardeners or small farmers to bring more land into food production.
1. Encourage best practices, such as the use of a sharing agreement to outline the rights and responsibilities of each partner (reference Appendix - "Resources").
  2. Form a web-based site to match land and gardeners and make available the various supportive websites providing guidance on best practices.
  3. Conduct promotional activities such as garden tours, spotlighting landscaped food gardens in public areas, and use of edible landscapes.

## Community Gardens in General and on Public Lands

A community garden is a property divided into individual garden plots with a common organizational structure. These may be located on county land, school property, regional park land, utility right-of-ways, and other public lands. Dialogue between gardeners may begin with gardening advice. But just as a small seed grows into a large watermelon, conversations between gardeners also grow into something larger and different than how they started. Community Gardens are special places which naturally nurture not only good nourishment for oneself, reflection, and relaxation, and but also interaction, involvement and responsibility as part of a growing, stronger community.

| Arlington County Community Gardens                    | Number of Plots | Public Transportation   |
|-------------------------------------------------------|-----------------|-------------------------|
| S. Four Mile Run Drive along the Bike Trail           | 48              | Bus                     |
| S. 9th Street and S. Buchanan along the Bike Trail    | 20              | Bus                     |
| Fort Barnard at S. Walter Reed Drive & Pollard Street | 70              | Bus                     |
| S. Glebe and S. Lang Streets                          | 70              | Bus                     |
| N. Barton and N. 10th Streets                         | 41              | Bus or Courthouse Metro |
| S. 9th Street and Rolfe Streets                       | 11              | Bus                     |
| N. Harrison Street, near Chestnut Hill Park           | 4               | Bus                     |
| 1601 Key Boulevard                                    | 21              | Bus or Rosslyn Metro    |
| Total County community garden plots                   | 285             |                         |

The County of Arlington already recognizes the benefits of community gardening. The Department of Parks and Recreation has a Community Garden Program which has seen participation by residents increase markedly in recent years. There is typically a waiting list of approximately 225-250 applicants, who can expect to wait about two years before a plot is available. Annual costs range from \$25 for a half plot with no water to \$60 for a full plot with water. These gardens are organized as individual associations which agree to their set their own by-laws, and must follow County regulations.

Establishment of sustainable community food gardens helps to:

- Educate participants in food-growing techniques and waste reduction through composting.
- Improve nutrition, level of physical activity and overall health.
- Engage youth and seniors and improve self-esteem.
- Strengthen relations between tenants and landlords.
- Strengthen relations among neighbors and enhance the sense of community.
- Connect individuals to community resources.
- Promote inter-cultural learning and connections.
- Increase overall safety and reduced crime.
- Develop eye-hand coordination for individuals with special needs or those recovering from injury or illness.

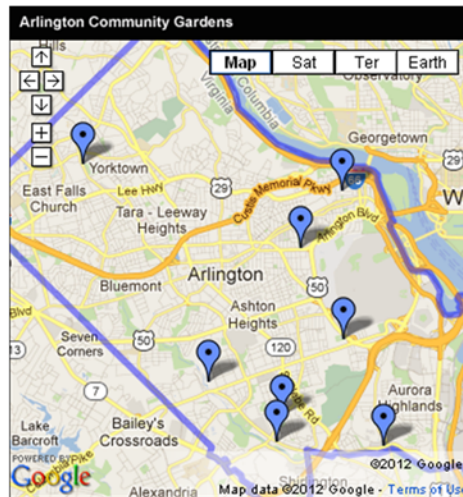


Figure 1 Map of County Community Gardens

The time and circumstances are ripe for Arlington County to be a leader with an initiative that can contribute to the above. Instead of confining Community Gardens to being only a few spaces, expanding gardening opportunities to more gardeners regardless of their location, type of residence, transportation options and economic means will bring benefits of improved health and community building.

**Faith-based and other community and non-profit organizations** sometimes grow produce to donate, such as the 11 churches participating in 2012 in the Arlington Food Assistance Center's "Plot Against Hunger". Others may grow produce they make available to members, neighbors or other food assistance programs. With the right kind of direction and support, faith-based and non-profit organizations can make a significant contribution to the supply of healthy food in Arlington. They have some special attributes that fit well with a program of urban agriculture:

- They tend to have growing space on their grounds well suited to growing many kinds of vegetables. Even those with relatively small plots of usable land find they can yield meaningful amounts of produce.
- They often have a good number of members who are available to do the actual work of food production and distribution. They also have substantial experience in developing and managing volunteer programs. Skills and experience in one church can be made available to others who wish to participate.
- Many faith-based organizations have the financial resources that can assist in the start-up of their programs, such as the purchase of seeds, equipment, containers, etc.

However, these organizations with available garden space could benefit from guidance and coordination with other food gardens. Often lacking is the technical expertise to get started and to ensure these volunteer-based programs continue to be sustainable. Over time the selection of crops may need to change to meet the changing needs of their target consumers. Also, the organizations may need longer-term assistance as they go through changes in membership, programs and focus. For example, they may see the need to transition out of the actual production of produce but be able to be a source of funding, distribution or other program assistance.

**Residential multiple dwelling buildings**, including rentals, condominiums and townhouses, tend to lack growing space or are prohibited from gardening by landlord or homeowner association rules. Community gardens can make a significant difference for this population.

Although renters make up approximately 58% of Arlington's population of 216,000, they are not well integrated into the County's civic life. Their transiency has increased in recent years and their incomes are



lower than the general population. Those with lower incomes also have less nutritious diets – and more health problems. While homeowners with yards have the opportunity to grow fresh fruit and vegetables in the back – or front – of their homes, residents of multiple dwelling properties commonly do not. Community gardens, conveniently located at or adjacent to where tenants live, offer that opportunity.

### **Recommendation D.3: Community Gardens**

- D.3 Actively promote and facilitate the establishment of sustainable community gardens located throughout the County on public lands, properties owned by faith-based and other organizations, and adjacent to or in close proximity to residential multiple dwelling properties; and formulate incentives for property owners and new developers to establish community food gardens.

#### **Community Gardens in General**

1. Create additional community garden spaces to shorten the wait for a plot.
2. Establish a portion of community garden space to be assigned on the basis of need for low cost food and encourage the donation of any excess produce to food distribution centers.
3. Develop, maintain and make available to the public an expanded map of community food garden locations, welcome the development of a corresponding smart phone application, and update the map annually.
4. Develop, maintain and make available to the public detailed information on available financial resources for community gardens, including opportunities for grants and private sector donations or discounts.
5. Provide educational, promotional information about community gardens in multiple languages and to recipients of County social services.
6. Promote community garden best practices for effective community garden administration and to inhibit neglect by individual gardeners, drawing from existing community gardens and their gardeners to determine successes and identify challenges, lessons learned and unmet needs where the County can assist directly or through collaboration.
7. Install or facilitate water sources and water harvesting solutions (e.g., rain barrels and cisterns) for use in community gardens.
8. Establish an awards process for well-tended and creatively-designed community gardens on public, private and residential multiple dwelling land to promote appropriate garden design and maintenance.
9. Work with APS to obtain gardeners (possibly from the County's community garden waiting list) to assist in school garden programs and to maintain school gardens during the summer months.
10. Support integration in public and private schools of academic curriculum and hands-on, extra-curricular activities on community food gardening and its benefits.

**Faith-Based and other Community and Non-Profit Organizations** - Facilitate faith-based, non-profit and other community organizations in planning for, developing, managing and sustaining garden plots maintained for public benefit.

11. Provide assistance in determining how best to convert some of the organization's property into food gardens, what crops are needed, which work best on their property and with their available personnel, and how best to get the product to the intended users, e.g. AFAC, schools and other assistance programs.

12. Facilitate the coordination of crop selection among these organizations to yield the overall variety and quantities needed and usable by the intended users.
13. Provide education and guidance on the best crop management practices, composting, environmentally responsible weed and insect control, economical water usage, and crop rotation.

#### **Residential Multiple Dwelling Buildings - Short-term (1-5 years) Implementation**

14. Distribute to real estate developers, landlords and homeowners associations educational and promotional information about community gardens, including their value toward increasing the retention of tenants and outlining factors conducive to the development of successful gardens.
15. Work with relevant groups to conduct a periodic survey of landlords asking if they allow, or would be open to, establishment of a community food garden on their property.
16. Work with homeowner associations to determine if they allow, or would be open to, the establishment of community food gardens on the property, and encourage compatible association rules.
17. Prioritize properties for outreach, mindful of conduciveness to community gardening:
  - a. Non-profit housing developers who receive government subsidies
  - b. Owners of properties with a high number of residents
  - c. Properties with residential dormitories and attentive populations
18. Identify suitable non-residential locations easily accessible to multiple dwelling properties usable for the establishment of new community food gardens, and pursue and support the establishment of community gardens, with preference provided to residents of multiple dwelling properties currently without garden space.

#### **Residential Multiple Dwelling Buildings - Mid-term (6-10 years) Implementation**

19. Significantly expand the number of residential multiple dwelling properties offering community gardens.
20. Expand the offering of information to all residents, including information in multiple languages.
21. Continue contact with community gardens at residential multiple dwellings to monitor progress, collect best practices and innovative approaches, and identify and seek ways to address unmet needs.
22. Improve funding mechanisms, workshops and education opportunities.

## **Gardens at Senior Centers, Housing Projects and Care Facilities**

Healthy eating is as important for older Arlingtonians as anyone else, and many senior citizens have to the time and desire to participate in gardening, either at their own home or as residents of other County housing options.

### **Recommendation D.4: Seniors**

- D.4 Work with the Arlington Area Agency on Aging, local senior centers, housing projects, and care facilities to expand the presence of resident-based community gardens.

## Gardens at Public Schools

Gardens can be found on many school properties. They provide educational opportunities on the methods of producing and the health benefits of fresh, local foods. Many schools have donated hundreds of pounds of fresh fruits and vegetables to the Arlington Food assistance Center (AFAC) from their gardens. Prime examples can be seen at Tuckahoe Elementary School, one of the oldest APS gardens; and Thomas Jefferson Middle School, with the largest food producing school garden in the County which has donated more than 800 pounds of fresh fruits and vegetables to AFAC. The use of schoolyards for gardening will need to be balanced with other space issues and needs, such as building capacity and recreation.

### Recommendation D.5: School Gardens

- D.5 Encourage and facilitate the development of food gardens with Arlington Public Schools (APS) and nearby properties for educational as well as food production purposes.
1. Encourage community support for schoolyard food gardens through engaging parents and volunteers.
  2. Promote the use of the greenhouse at the APS Career Center and at other facilities, for education and demonstration sites for horticulture, aquaculture, animal husbandry and other food production practices and training.
  3. Encourage water-wise best management practices and rain-harvesting on school grounds.
  4. Encourage garden-waste composting on school grounds, using best management practices to demonstrate that proper composting avoids odor and infestation problems. For example, include locating compost bins away from buildings, shielding them from view, preventing rodent access to compost, and minimizing water-runoff into waterways or onto adjacent properties.
  5. Promote commercial food composting for school food service food waste.

## Gardens on Parks and Other Public Lands

The definition of a garden as used for “public lands” is spaces suitable for at least a garden plot that are sited on properties under the control of Arlington County, and in some cases other governmental entities such as the Northern Virginia Regional Park Authority. The following is an overview of the possibilities such sites offer. In that context, certain properties are discussed as examples of how food production could be achieved on public lands. In Arlington County, public open space land is in high demand for use by multiple constituencies and user groups.

Opportunities exist on public land throughout the County. For example, some spaces are severely underutilized due to overgrowth of invasive plant species. Identifying and targeting these overgrown areas for repurposing as gardens would allow them to be better utilized for public good. Revitalizing such open space would create opportunities for the County and citizens to engage in urban agriculture together. In addition, underutilized paved areas may be usable by installing raised beds or other containers, and even small spaces can become productive food gardens.

### Recommendation D.6: Public Lands

- D.6 Include food production sites in parks and other land use planning.
1. Incorporate fruit and nut trees and other food-producing plants in plantings in parks intended for public gleaning and food pantries.
  2. Include pollinator gardens in public landscaping in order to maintain a population of pollinators to support food production and gardens.

3. Promote positive public attitudes and governmental policy regarding food gardens through demonstrating best practices and educational installations.
4. Recognize the diverse ethnic groups in the county by encouraging growth of food plants common to their diet and heritage, where appropriate for the Arlington County climate and environment. Climate change may make our area more suitable for food plants from other regions.
5. Create common farms (see below) and educational/demonstration sites for localized technologies for food production and locate in areas accessible to various neighborhoods.
6. Site community gardens in such a way as to provide control of invasive species and to preserve open spaces and recreational uses, such as a border around the perimeter of a park or along a trail, or by raised beds on paved areas.
7. Allow gardens to be situated on sloped areas unsuitable for playing fields or sledding, utilizing terracing or other methods suitable to the site.
8. Incorporate attractive edible landscaping elements into public gardens to attract the public and potentially design for dual use as event space.

## Commercial Food Production

Optimized production of food in Arlington County will require short-term and long-term access to vacant land. Even though the County is almost fully developed, with no farms and little remaining vacant land, it is possible to convert underutilized smaller parcels, vacant land in early development stages, municipal lots, and portions of parks and sporting/recreation spaces into sustainable assets for the community. Sites may be managed as a business or as a non-profit with produce sold or donated to food pantries. These could include intensive growing techniques, greenhouses, vertical and rooftop farming, localized composting, and other innovative practices. Additional community benefit would be realized when these sites provide employment and job training for individuals.

**Common farms (urban farms)** are sites managed as one site rather than the individually-managed beds seen in community gardens. Fruit trees, berry bushes and other food-producing perennials may be included. They provide sites for researching and developing improved practices to grow food in Arlington County's specific urban environment conditions. Common Good City Farm in Washington, DC, is a local example.

**Nomad (temporary) gardens** The County and other land owners control properties that remain unused for sometimes several years between the razing of legacy structures and the onset of new construction. These properties are often at least partially paved with areas of fill dirt unsuitable for growing, and some sites have contaminated soils. They tend to be unattractive and even unsafe.

An innovative concept for interim use is the creation of nomad gardens. These are gardens typically set on pallets or otherwise moveable, enabling quick and efficient relocation to another site, and can be installed in the quantity suitable for each site. From a small home site to large parking lots, these above-ground portable gardens are a viable fit for an urban area such as Arlington where properties are often in transition. In May 2013, the Arlington County community garden at Fort Barnard received a grant from the company that provides Mrs. Meyer's Clean Day products. This demonstration project will involve planting several gardens on pallets for the AFAC Plot Against Hunger program. During the 2013 growing season, the gardeners will be determining best growing techniques, soil media, irrigation, and crop varieties best suited for this above-ground gardening method in Arlington.

**Non-profit land trusts**, such as the Northern Virginia Conservation Trust, provide a viable means of preserving lands for dedicated purposes, such as urban agriculture. A land trust can support urban agriculture in a number of ways.

- Land trusts can apply for grants to acquire land for conservation and then lease the land to community groups to run community gardens or urban farms on the site.
- Land trusts can tap into federal and state income tax benefits that can be used to support urban agriculture. Private land owners who place their lands under permanent easement to land trusts for the purpose of allowing community gardens or urban farms on their land could qualify for significant tax benefits.
- Land trusts could use tax-deductible donations to purchase leases on private lands for urban agricultural purposes.
- Encourage these urban agriculture uses by adopting a “land use” ordinance - similar to the Agriculture and Forestal Districts in Fairfax County - that would tax property at a lower rate provided that the land was used for urban agriculture.

## **Recommendation D.7: Commercial and Larger Scale Production**

- D.7 Enable commercial and larger scale food production by facilitating the availability of growing spaces, restructuring related regulations to encourage such production, promoting best practices applicable to urban settings, encouraging community participation, and facilitating land trusts and other means to preserve growing spaces.

### **Short-term**

1. Develop an inventory of land potentially available for short term (minimum 2 years) and long term (2 years or more) farming of half an acre or more, according to criteria such as specified above in Recommendation D.1.
2. Revise the Arlington County Code, GLUP Master Plans and Zoning Ordinances and related regulations and adjust restrictions and facilitate permitting processes for all aspects of urban farming, creating Historically Underutilized Business (HUB) zones and special programs to encourage redevelopment prioritizing food production.
3. Develop comprehensive volunteer programs and extension programs through universities, high schools, gardening clubs, civic groups and neighborhoods to assist with urban farm operations.
4. Encourage intensive, multi-crop vegetable culture protocols suitable to County growing conditions. These techniques produce much higher yields in smaller spaces, making them very suitable for urban sites.

### **Long-term**

5. Survey available sites and match to growing methods such as in-ground, above-ground and hoop house production, aquaponics, and hydroponics (see Appendix G – Glossary for definitions).
6. Facilitate and incentivize land trusts to acquire and preserve lands for food production.
7. Facilitate the installation of nomad or temporary gardens on paved or contaminated properties, and those in transition from prior to future commercial development, for raised bed and container gardening. Innovative technologies may be implemented to fit the needs of growing in such spaces. Those sites available temporarily would use movable growing structures such as pallet-based beds, bags and other containers.

## **Rooftop Farms and Other Building-Related Growing Spaces**

Rooftop farms are green roofs specifically designed to grow food-producing plants. As existing rooftop farms in Washington DC, New York City and elsewhere demonstrate, rooftop gardens and rooftop greenhouses



can provide sources of local healthy food as well as educational value. Innovative techniques are emerging to reduce the depth of soil (and thus weight) to support food plants and provide energy savings to the building due to the insulating effect as well as reduce water runoff. Greenhouses in our climate offer the possibility of extending the growing season year-round, and producing a dependable crop in all kinds of weather.

Parking deck roofs and sides could likewise be used for food production. Food production can be viewed in all three dimensions of a building, including on the inside, walls, and roof. For instance, Ballston Mall Parking Garage currently has raised planting beds on its rooftop deck now planted with ornamentals. These and existing dead spaces that occur in parking lot grids could easily be converted to food production. These spaces can enable increased opportunities for agricultural businesses and job expansion. Bee hive space could be licensed to private contractors on public rooftops to improve the population of pollinators.

Guidelines exist to determine whether there is adequate structural support for a rooftop farm or for the weight of the proposed plantings, and provide safety standards for rooftop users.

### **Recommendation D.8: Rooftops and Other Urban Spaces**

- D.8     Incentivize and promote food production on rooftops, parking decks, government buildings and grounds, and other private and commercial locations (see also Recommendation A.4).
1. Survey buildings in Arlington County for their potential as sites for rooftop and vertical space food production.
  2. Examine the Zoning Code to better facilitate the installation of greenhouses and auxiliary food production structures which might otherwise exceed building codes.
  3. Establish resources for guiding the retrofitting of rooftops for food production.
  4. Incentivize the installation of rooftop food production gardens or greenhouses, by facilitating grants or using financial incentives as described in Recommendation A.4 above.
  5. Where feasible, utilize County buildings as demonstration facilities for food production in rooftop gardens. Research needs to be ongoing to identify plants most suitable for rooftop food production in Arlington County, and to determine the best growing technologies.
  6. Provide for licensing or other approval of farmers/entrepreneurs to contract to maintain large growing spaces and beehives on public and non-public roofs and parking decks. One farmer could manage several such sites as one “farm” (e.g., Brooklyn Grange).
  7. Educate gardeners/farmers on shallow-bed growing techniques, used on rooftops to reduce weight.



## Promotion of Businesses and Jobs Related to Urban Agriculture

The for-profit sector has much to contribute to urban agriculture and has already done so. Especially at a time of heightened demand for shrinking public resources, the private sector can play a critical role in maximizing accessibility to fresh local food.

### Recommendation D.9: Business and Job Development

D.9 Enhance small business development and job creation within the arena of agricultural and gardening pursuits.

Examples include the installation and maintenance of food gardens (much as landscapers maintain green areas), tilling, garden soil, compost and mulch delivery services, sales at farmers' markets and by CSAs of fresh produce, honey and processed foods (e.g., salsa, jams and jellies, honey, baked goods), rooftop, vertical, aquaponic and hydroponic commercial food production operations, food carts, food hubs, sales of gardening tools and supplies.

1. Liaise with grocery stores and promote food hubs to encourage expanded offerings of local produce and other regionally produced foodstuffs.
2. Work with local restaurants and other food providers to spur increased utilization of area produce and develop innovative ways of minimizing waste through safe distribution of unconsumed food and composting.
3. Publicize the retail and online availability of locally produced raised gardening beds, tunnels, affordable, attractive and well-designed chicken coops, and related goods.
4. Facilitate linkages with local businesses with an urban agriculture focus, such as garden-scaping services.
5. Promote smaller scale commercial food production businesses such as aquaponics, greenhouse production (hydroponic or traditional methods), and beekeeping.
6. Enhance County economic development programs to better serve and mentor small farmers and other urban agriculture businesses.

7. Facilitate local food growing and delivery systems by providing for electronic communication between growers and business and individual consumers, and timely distribution of produce.
8. Pursue financial support for County and non-profit urban agriculture programs by identifying and facilitating applications for grants, loans and sponsorships from non-profits, faith-based communities, entrepreneurs, the United States Department of Agriculture, and other sources.
9. Support programs establishing a trained agricultural workforce using programs that provide transitional training to individuals. These could include returning military, recently incarcerated or currently homeless individuals, and others. Experience has shown working in a garden or on a farm can develop general and specific work skills in a reinforcing environment before returning to the general workforce.
10. Promote commercial kitchen availability for food preservation and value-added food entrepreneurs offering such products as preserved produce, jams and jellies, kale chips, and honey.
11. Link to Community Supported Agriculture (CSA) websites for businesses delivering to consumers' doorsteps or specific locations (e.g. office buildings, community centers, houses of worship).
12. Modify regulations as needed to allow fresh food mobile markets, using vehicles ranging from food carts to repurposed buses or trucks, to sell in neighborhoods and commercial areas, especially those underserved by other fresh foods sources.
13. Encourage fresh foods marketing through corner stores, grocery stores, and food hubs.



## **Livestock: Animals, Fish, Hens and Bees**

Urban hen-keeping is an increasingly common manifestation of the values that shape the urban agriculture movement. Backyard eggs are fresher and may be more nutritious than store-bought eggs. Keeping a small number of hens in the backyard is a way to conserve resources, reduce dependence on industrial-scale agriculture, and produce ultimately local food. Small numbers of backyard hens produce nutrient-rich manure that can be fully and productively recycled on site, reducing the need for fossil-fuel-based fertilizers. Homegrown hens have educational value by connecting people to a source of food. Backyard hens are embraced in a large and growing number of urban communities across the nation. Reports consistently indicate that hens have become an integral, productive, and welcomed component of these communities and their food systems. At the same time, municipalities have implemented a range of protocols to address

and accommodate concerns related to human and animal health and welfare, aesthetics and appearance, relations with neighbors, environmental implications, monitoring and enforcement, and the like. The following are consensus recommendations of a majority of the Task Force, and two “minority” reports of some task force members may be found in the Appendix.

The Arlington County Code, Chapter 2 – Animals and Fowl, addresses the keeping of fowl, pigs, dogs:

- Article I – In General specifically prohibits the keeping of pigs. It also prohibits allowing fowl to enter the property of another landowner, but not the keeping of fowl.
- Article III – Animal Housing addresses both agricultural and companion animals and exotic birds. Item 2-15 details proper housing and care requirements – food, water, enclosures, treatment, security (no escape, or entry of other animals)

### **Recommendation D.10: Livestock for Food Production**

D.10 Facilitate and monitor the keeping of food producing livestock to provide a legal way for residents to avail themselves of fresh eggs, meat and milk at a level within the parameters of an urban environment.

1. Before enacting any of the proposed recommendations below, the County should consider a pilot program overseen by an institutional entity knowledgeable of best practices and which would produce an evaluation of the pilot, studying impacts and recognizing the diversity and dimensions differences of home sites.
2. Develop a straightforward, online permitting process, with inspections.
3. Allow up to four hens per household, and no roosters, with a permit.
4. Provide information on best practices that are detailed and readily understood. This would involve breeds, proper housing, proper nutrition, healthcare, pest and predator control, community relations, etc.
5. Develop easily accessible FAQ's and sources of expertise, and utilize social media for continuing education and best practices.
6. Identify, fund and clearly outline parameters for enforcement by an appropriate authority.
7. Encourage creation of a Master Hen Keepers Association.
8. Require an enclosure set back of at least 20 feet from property line.
9. For all persons seeking to keep hens, require pre-approval from a majority of adjacent property owner property lines within fifty (50) feet of the placement of chicken coop, using the approval form as provided by the responsible agency.
10. All persons shall file a plan that shows coop specifications and placement. The appropriate authority shall conduct an inspection of the yard and coop prior to occupancy.

## **Section E - Access to Fresh and Local Foods and Food Distribution**

**Objective E:** *To increase the availability of fresh foods to Arlington County residents and enhance the distribution mechanisms to efficiently move local fresh foods from growers to individuals, restaurants, retail markets, and institutions.*

## Overview

Fresh produce is delivered to four different consumer groups in Arlington County, each of which has its own means and needs for accessing fresh produce. These groups are:

- Residents
- Retailers (small, medium, large grocery stores and convenience stores)
- Commercial kitchens (restaurants and caterers)
- Institutional kitchens (schools, universities, senior living facilities, hospitals, government offices)

Arlington County differs from its neighboring counties in that there are no farms remaining within its borders. The closest farm to Arlington is Potomac Vegetable Farms in Fairfax, located approximately 13 miles from Arlington. For that reason, Arlington residents generally purchase locally-grown produce (often defined as grown within 100-125 miles of Arlington County) from farmers' markets, CSA's (Community Supported Agriculture) and grocery stores. Indirect distribution to residents comes via restaurants, institutions like schools and hospitals, and food pantries.

Arlington County also has no produce or food wholesalers within its borders. Wholesale distributors for produce are located at Union Market in Washington, DC; Shenandoah Valley Produce Auction in Dayton, VA; the Southern Maryland Farmers' Market in Cheltenham, MD and at large metropolitan wholesale depots in Bowie, Jessup, Landover and Columbia, MD. Blue Ridge Produce, located in Culpeper, Virginia is a new food aggregator that opened in 2011. Blue Ridge accepts locally-grown produce from over 40 area farms in the Piedmont region.

Retail grocers such as Safeway and Giant have their own distribution chains and sometimes promote local products by identifying the name of a farm or specific grower. Whole Foods makes a major point of promoting as many locally-grown products as possible, encouraging individual farmers to approach a store to sell their farm's produce. The challenge to grocery stores is to provide a steady, year-round supply of standard-sized, good quality produce and a consistent volume of fairly-priced produce items.

Public institutions such as schools, universities, senior facilities, and hospitals serve significant amounts of food directly to residents. In Arlington Public Schools alone, 423,000 breakfasts and 1,072,000 lunches were served in the 2011-2012 school year. Fresh and local produce served by the school system is increasing as sources become available.

Whether commercial kitchens (restaurants and caterers) purchase locally-grown produce depends a great deal on the size of the business and their philosophy. Some source through produce purveyors; others purchase produce directly from area farmers. Small restaurants that have flexibility in their menus even accept produce grown in Arlington. Large restaurant groups rely on wholesale distributors such as Keany Produce, Sysco Foods, US Foods, Lancaster Produce, and Coastal Sunbelt Produce as their primary suppliers. When local produce is available to these large distributors (usually during the spring, summer and fall seasons), it may or may not find its way into this distribution chain. Chipotle Mexican Grill sources as many local ingredients as possible for their restaurants; Silver Diner also sources from select farms in the mid-Atlantic region. As with grocery retailers, restaurants require consistent volume and quality of product to meet customer demand.

The availability of local produce is mostly seasonal, but farmers' have begun to shelter their crops to extend the growing season and their ability to scale up and supply grocery stores and large institutions is slowly increasing. According to a National Public Radio (NPR) report in November, 2012, the ability to grow vegetables year-round in our region has already been developed with crops being grown in hoop houses, hot beds, high tunnels and heated greenhouses. A hydroponic farmer who grows tomatoes and herbs in



West Virginia told a reporter that he cannot keep up with the demand for locally-grown produce from Whole Foods, Safeway and Harris Teeter.

## Direct Fresh Foods Access for Consumers

As stated above, consumers who do not have direct access to vegetable gardens now usually acquire fresh produce from regional/local growers through farmers' markets and CSAs, and those grocery stores selling locally-grown produce. These sources are not always an option, especially for those on limited budgets or who have mobility or transportation access issues.

**Farmers Markets:** Farmers' markets are a means for customers to connect directly to a grower, to buy fresh, local produce and products, and to socialize with other residents. Products are fresher than can be found at local grocery stores but prices for products are often comparable or higher than that found at groceries. Markets may also offer educational and community activity information booths.

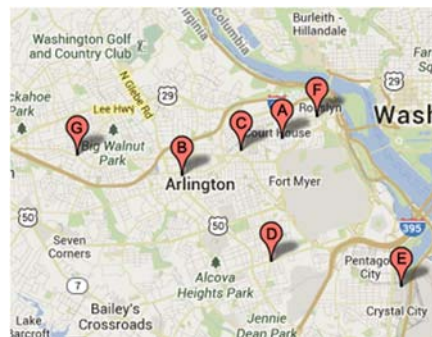


Figure 2 Farmers Market Locations

There are currently seven farmers' markets in Arlington, with vendors coming from Pennsylvania, West Virginia, Virginia, Maryland and Delaware. These markets are located in selected neighborhoods or business districts and demonstrate a number of successful models. They are located in temporary venues set up on closed streets and public plazas, and open for 3-4 hours, once a week at each location. Their size and the variety of local products offered varies widely, and those that remain open year-round downsize during winter months. Courthouse is the only farmers' market directly overseen by Arlington County, and was founded in 1979 in partnership with Virginia Cooperative Extension. Local BID's (Business Improvement Districts) have established farmers' markets in some areas, in response to requests by local residents and businesses for seasonal markets. The markets have gleaning arrangements with various local charitable food distributors. See the table below for side-by-side comparisons of the farmers markets in Arlington.

| Location, Sponsor                            | Operating Schedule                    | Public Transportation         | Parking | Customers                                                                              |
|----------------------------------------------|---------------------------------------|-------------------------------|---------|----------------------------------------------------------------------------------------|
| Ballston, Ballston BID and FRESHFARM Markets | Thursday after-<br>noons<br>Seasonal  | Bus<br>Metro – Orange<br>line | Limited | Local businesses, lunch-<br>time crowd, residents<br>returning from work,<br>commuters |
| Clarendon<br>Clarendon Alliance<br>(BID)     | Wednesday after-<br>noons<br>Seasonal | Bus<br>Metro – Orange<br>line | Limited | Local businesses, lunch-<br>time crowd, residents<br>returning from work,<br>commuters |
| Courthouse,<br>Arlington County              | Saturday<br>mornings<br>Year-round    | Bus<br>Metro – Orange<br>line | Ample   | Arlington and<br>Washington, DC<br>residents                                           |

|                                                                |                                 |                                      |          |                                                                   |
|----------------------------------------------------------------|---------------------------------|--------------------------------------|----------|-------------------------------------------------------------------|
|                                                                |                                 |                                      |          | Oldest; started 30 years ago                                      |
| Columbia Pike, Columbia Pike Revitalization Organization(CPRO) | Sunday mornings<br>Year-round   | Bus                                  | Adequate | Neighborhood residents Offers SNAP since Nov. 2012                |
| Crystal City, Crystal City BID and FRESHFARM Markets           | Tuesday afternoons<br>Seasonal  | Bus<br>Metro – Blue and Yellow lines | Adequate | Local businesses, lunch-time crowd, residents returning from work |
| Rosslyn, Rosslyn BID                                           | Thursday afternoons<br>Seasonal | Bus<br>Metro – Blue and Orange lines | Adequate | Local businesses, lunch-time crowd, residents returning from work |
| Westover, Field to Table, Inc.                                 | Sunday mornings<br>Year-round   | Bus                                  | Ample    | Neighborhood residents                                            |

**Community Supported Agriculture (CSA):** Fresh produce can be purchased by residents through CSA programs, operated by individual farms. The farmer sells subscriptions for the growing season, at a fixed price, which entitles the subscribers to receive a weekly box of seasonal fruits and vegetables. At least eight CSAs from farms located in Virginia and Maryland distribute to Arlington homes, businesses and neighborhood pick-up locations. Products include fresh fruits, vegetables, dairy products and meats. Drop sites are generally in more affluent neighborhoods as shares cost from \$600 to \$1,100 per 20-week season depending on the prices set by the farm, the product mix, and whether the products are organic.

One exception to the typical neighborhood-based model is the Crystal City BID CSA, which provides a viable model for CSA distribution to people who live and/or work in a business district. In 2010, the Crystal City BID, in response to local residents' and business requests for a farmers' market, decided to pilot a CSA program to gauge true interest in procuring local produce. The CSA pilot was so successful that it continued in tandem with the farmers' market that began operations in the following year. Crystal City BID partners provide their extra office space to serve as drop sites for shares. Although the farmer must drop off produce in a dense urban area, the high volume of shares makes it profitable for the farmer who needs only to deliver produce to two sites within a quarter mile of each other. Residents and those employed by Crystal City based businesses use both the farmers' market and the CSA as means of acquiring local produce. Customers have only requested of the BID that both are not held on the same day so they can manageably carry their produce to the Metro. The BID reaches out to the wider community by donating excess produce from shares which are not picked up to the Arlington Food Assistance Center (AFAC).

Such a model benefits local farmers' by allowing them an assured income for the season and delivery at convenient drop sites with a large volume of sales. For consumers, good quality, local produce can be picked up within minutes of where one lives or works.

**Mobile Markets:** Mobile produce markets (often on repurposed school busses) have been successful in several cities, bringing produce directly to neighborhoods and places where people work and congregate. They can be established at community centers, senior centers, within low-income neighborhoods, at hospitals, churches, schools and parks. These vehicles may be off-shoots of a permanent farmers' market hub (as described in Recommendation E.2) or run by non-profit or for-profit organizations with connections to area farms, or be operated as farm stands set up by farmers themselves. Examples include Arcadia Farm Mobile Market in Alexandria and Washington, DC; Duke University Mobile Farmers' Market and New Morning Farm, Pennsylvania which has operated a Saturday farm stand for the past 35 years in northwest Washington, DC, with stops in several neighborhoods.

### **Recommendation E.1: Direct Consumer Access to Fresh Foods**

- E.1 Improve direct access to fresh and local produce sourced from growers within Arlington and those who are located within the regional foodshed.

**Short-Term**

1. Facilitate community supported agriculture programs by linking farmers, consumers, and community organizations, faith-based groups, educational institutions and BIDs. Establishing and coordinating these partnerships will help CSAs to serve consumers more efficiently.
2. Encourage the mobile market sales of fresh produce by small businesses or area farmers by facilitating the permitting process for vendors and extending time limits on curbside parking.

**Mid-Term**

3. Encourage the development of farmers' markets in the County in underserved areas.

## Fresh Food Availability for Underserved Populations

Although Arlington County overall ranks as a high-income area, many residents are food - insecure or live in areas underserved by retailers of fresh produce. Arlington County Schools reports that 31% of their students receive food assistance during the school day. The Arlington Food Assistance Center (AFAC), Arlington's largest food pantry, provides supplemental groceries to 1,400-1,500 low-income households each week. A 2010 county-level study by Feeding America showed that 6.7% of Arlington residents (13,160) are considered food insecure.

Studies have shown that use of SNAP benefits at markets and Farmers' Market Nutrition programs for seniors may lead to an improvement in the intake of fruits and vegetables for the populations who use them. Furthermore, when farmers' markets are able to offer Double-Up Dollars or similar incentive programs, there is a marked increase of produce purchases by low-income customers and also increased sales by farmers. These incentive programs are offered by foundations such as the Fair Food Network, Michigan and Wholesome Wave Foundation, Connecticut (Wholesome Wave currently provides funding to Arcadia Farm's Mobile Markets in DC and Alexandria, VA).

Nutritional assistance programs include:

- Senior Farmers' Market Nutrition Coupons (administered by the United States Department of Agriculture (USDA) and distributed by the Arlington Area Agency on Aging)
- Double-Up Dollars and other incentives provided by private foundations
- Supplemental Nutritional Assistance Program (SNAP), formerly known as Food Stamps administered by the USDA and administered by the Arlington County Department of Human Services. In 2012, 4,440 households in Arlington received SNAP benefits.

In Arlington, the Columbia Pike Market draws customers from the surrounding neighborhood and is the first market in Arlington to currently accept and have the capability to process SNAP benefits for low-income customers. Mobile markets could also offer these benefits.

**Good Food Boxes** provide affordable, CSA-type delivery of healthy produce to low-income families who may live from paycheck to paycheck and do not have \$600 or more to spend on the upfront subscription fee at the beginning of a growing season. The "Good Food Box" program was founded in Toronto, Ontario in 1994. By 2011, the sales had expanded to 4,000 boxes per month. The program has been successfully replicated throughout Ontario and other Canadian provinces. In British Columbia, Nanaimo Food Share reported that their \$10 box contains 50-70 servings of fruits and vegetables, and their participants have reported that they are healthier and have lost excess weight. The Detroit, Michigan's Eastern Market Fresh Food Share program provides an example in the US.

AFAC is studying the option to make available fresh produce to Arlington residents through a program similar to the Good Food Box program by using volunteer labor (e.g., churches, schools and community centers would act as packing locations and pick up sites) and assistance provided by AFAC's community partners and by AFAC

customers who purchase GFB shares through their neighborhood coordinator. This proposed program would sell and deliver low-cost fresh produce at near or slightly-above cost to all income households in Arlington County, initially targeting low-income neighborhoods. SNAP and senior coupons would be accepted and recipes would be included with each box. Sourcing would initially include produce wholesalers and purveyors who source locally and around the US. With an increased volume of orders, it is hoped that produce can be sourced totally from local farms. Once established, there is potential for local businesses, institutions and government offices to use Good Food Box “shares” as part of an employee health benefits package.

### **Recommendation E.2: Direct Consumer Access for Underserved Populations**

- E.2 Increase access to fresh and local produce for those with inadequate access to such produce due their location in relation to retailers, income level, lack of public transportation, or other mobility issues.

#### **Short-Term**

1. Study grocery and farmers’ market locations in relation to access and transportation issues for residents to identify areas underserved by access to fresh and local foods. Make this information available on a regular basis to the business community, grocery stores, developers, and other entities to encourage additional stores and markets where needed.
2. Encourage farmers’ markets to accept benefits for low-income customers such as SNAP and Senior Farmer Market Nutrition Coupons, and advertise the availability of these benefits to those who could benefit from these services. This could be facilitated by incentives to market organizers.
3. Provide outreach workers from DHS at markets and elsewhere to educate and help residents sign up for SNAP, Senior Coupons, and “Double Dollars” benefits. Work with foundations which underwrite these programs, and underwrite or seek grants to support a part-time, multi-lingual County staff position to rotate among farmers’ markets in order to process these benefits.

#### **Mid-Term**

4. Identify and facilitate such options as a Good Food Box program by providing space in community centers for packing produce and for produce pick-ups, reducing program costs.
5. Facilitate transportation to farmers’ markets from senior centers and community centers, and ensure convenience of public transportation to markets.
6. Promote mobile markets serving senior centers, hospitals, schools and community centers and that accept SNAP benefits and Senior Farmer Market Nutrition Coupons. Consider the lack of local grocery stores in targeting sites for mobile markets.

## **Fresh Foods Access for Grocery Stores, Commercial Kitchens and Institutions**

Large grocery store chains like Safeway, Giant, Harris Teeter, and Trader Joe’s have large, well-established supply chains. The mainstream supermarket distribution system favors large-scale suppliers and facilitates long distance movement of products. Supermarket wholesale and retail companies usually prefer to work with a small number of large, reliable suppliers. Some of the produce may be locally sourced during the local growing season, but it remains a fraction of produce offered to consumers.

In Arlington, Whole Foods/Clarendon purchases local produce from individual farmers and from farm aggregators such as Blue Ridge Produce (Culpeper, VA). “Local agriculture” at Whole Foods is defined as produce sourced from within 100 miles of a given store. The Arlington store, because of its distance to farms, has solved distribution and delivery problems between farms and their store by using stores further out in Virginia as drop-sites for farmers. For example, a farmer in Culpeper delivers the produce to a WholeFoods store in Fair Lakes, and the Arlington store sends their truck to pick up that produce. For some farmers, the ability to sell their produce to Whole Foods is attractive; for others, direct sales to customers at farmers’ markets and through CSAs is a better economic option.

Many areas in Arlington are served by farmers' markets. The most recent success in establishing a market in Arlington is the Westover "Field to Table" Market which opened in late spring 2012. Since opening, hundreds of customers attend the market each Sunday morning. The success of the market and the business it has generated for the local business area, attests to the desire among some Arlingtonians to access fresh locally-grown produce, connect with the growers and be able to rub shoulders with their neighbors as they "go to market." Three questions arise: 1) Is there a need to establish markets in other areas of Arlington that would be convenient to transportation and foot traffic from those neighborhoods? 2) If so, where should such markets be located? 3) Finally, if establishing neighborhood markets are not feasible, what alternatives should be considered in order to facilitate the accessibility of fresh produce to all residents in Arlington County?

**Local Food Hubs serving urban areas** provide a system by which restaurants, commercial kitchens, grocers, institutions, schools and universities, and other large consumers can procure the consistent volumes and quantities of local produce they require throughout the year. Assuring this supply is the greatest problem cited by owners of area restaurants and caterers. In northern Virginia an area food hub would address this by providing the interface between aggregating produce from local farms and processing and distributing it to restaurants and grocery stores. An online system coordinating and facilitating orders from restaurants and deliveries from farmers allows orders to be placed and filled efficiently. Virginia examples include Lulu Food Hub in Richmond and The Local Food Hub in Charlottesville.

A food hub can create an efficient infrastructure to bring food from outlying farms into our area. It can also help solve logistical problems for farmers who need to spend their time growing vs. selling and delivering their food at farmers' markets and through deliveries of CSA shares. Through economies of scale, a food hub can make good food available to low-income households and perhaps work in conjunction with the AFAC Good Food Box program.

Arlington County continues to support the Northern Virginia Food Coalition Working Group. Members include representatives of Arlington County Department of Parks and Recreation, Northern Virginia Health Foundation, the City of Alexandria Department of Health, Arcadia Farm, Sustainable Reston, Virginia Cooperative Extension, Arlington Food Assistance Center and its Plot Against Hunger program, Gardeners Share in McLean, and others) to discuss issues of access and distribution of locally-grown food and identify barriers which exist for both producers and consumers.

**A permanent, sheltered farmers' market** (open 5-6 days per week) in an accessible, underserved area of the County can supply fresh produce to nearby small groceries and small restaurants, as well as to local residents. A hybrid market could sell not only locally-sourced produce but could also supply value-added products to local grocery stores and restaurants. These products could reflect the cultural personality of the neighborhood and the larger community. Farmers' markets are often a boon to a neighborhood. They not only offer fresh produce to consumers, thereby improving nutrition, but also enliven areas which may be economically depressed by creating jobs and spin-off business opportunities. A sheltered, covered market would have the potential to:

- Create a community center.
- Include a commercial kitchen to train new entrepreneurs in small business practices.
- Include a kitchen facility which could be rented to small business owners to produce value-added products and local brands.
- Include a teaching classroom where classes on nutrition and healthy lifestyles can be taught.
- Provide employment to local residents.

In the mid-Atlantic region, examples of covered markets are DC's Eastern Market and Union Market (formerly DC Farmers' Market), Philadelphia's Reading Terminal Market, Baltimore's Lexington Market, and Lynchburg's Community Market.

### **Recommendation E.3: Retailers and Commercial and Institutional Food Service**



- E.3 Facilitate and incentivize the purchase of fresh and local foods for resale by retailers, from convenience stores to large grocery stores, for use by restaurants and commercial kitchens, and for food service at schools, senior living facilities, universities, hospitals, and other large institutions.

**Short-Term**

1. Encourage small grocery stores to stock fresh produce by seeking innovative incentives.

**Mid-Term**

2. Work to strengthen connections between institutional and commercial kitchens, grocers, and existing area food hubs such as Blue Ridge Produce and Arcadia Farms at Woodlawn.
3. Encourage new food-related businesses by developing a commercial kitchen for entrepreneurs to develop and market value-added products. This facility could also act as a teaching kitchen and offer nutrition classes and other programs run by local non-profit social service agencies to promote proper cooking techniques and broader use of fresh foods in the home.
4. Work with regional governments and stakeholders to investigate the feasibility of establishing a food hub or food store in the northern Virginia area for farmers to aggregate and sell crops to Arlington's urban market.

**Long-Term**

5. Encourage a permanent sheltered farmers' market in the County which can act as a market for local restaurants and grocery stores, and which is convenient to low-income areas to increase access to fresh fruits and vegetables.
6. Encourage an online ordering system at the food hub to coordinate orders between commercial kitchens, small and medium size groceries, and farmers.

# **Appendices**

## **Appendix A - Summary of Objectives and Recommendations**

### **Section A: Governmental Commitment**

**Objective A:** *To ensure institutional and regulatory support for urban agriculture through local government tools.*

#### **Summary of Recommendations:**

- A.1 To continue to implement the UATF mission going forward, the County Board should establish and appoint a permanent Commission on Urban Agriculture, with staff liaison and similar structure to other County advisory commissions.
- A.2 The County should perform a comprehensive review of all County planning documents to ensure that urban agriculture and sustainable food planning are integrated in operative documents as they are modified, renewed or produced, ranging from the County's Comprehensive Plan to the General Land Use Plan, Sector Plans, Revitalization Plans, Neighborhood Conservation Plans and the Zoning Ordinance. The General land Use Plan (GLUP) defines the overall character and location of various land uses throughout the County and serves as the primary guide for both stakeholders and the County in development decisions. A range of land use categories with a range of densities and typical uses is provided, including residential, commercial and industrial, public and semi-public, office-apartment-hotel and mixed use.
- A.3 Ensure participation by the Arlington County Board, staff and the community as leaders in regional conversations and strategies related to sustainable urban agriculture and food policy. Political leaders and decision-makers in the Washington region need to coalesce to formulate a strategic agricultural support plan and agree upon steps and measures that will help sustain local agriculture and preserve area farmland through the 21st century.
- A.4 Review and revise the Arlington County Zoning Code and regulations to facilitate urban agriculture.
- A.5 Encourage and incentivize developers to include urban agriculture elements in their site plans.

### **Section B: Knowledge, Communication and Organizations**

**Objective B:** *To provide the information and organizational resources to enable Arlington residents, institutions and businesses to implement sustainable fresh food availability and food production by enhancing existing programs and facilitating new initiatives.*

#### **Summary of Recommendations:**

- B.1 Encourage non-profit organizations, libraries, community centers, and educational institutions to offer courses and mentoring tailored to urban agriculture, such as general gardening, operating common farms, plants suitable for a warming climate, intensive planting techniques to grow more food in the same space, rooftop growing techniques, aquaponics, and other emerging techniques.
- B.2 Enhance and support the efforts of Virginia Cooperative Extension (VCE) and other appropriate resources by configuring staff to increase nutrition and horticulture programs, with an emphasis on food production.
- B.3 Create an Arlington "brand" and logo, such as "FreshArlington," to focus educational campaigns and urban agriculture programs on the health and other benefits of fresh foods produced, processed or sold in Arlington County at farmers' markets and by other food retailers.

- B.4 On Arlington County's website, [www.arlingtonva.us](http://www.arlingtonva.us), enhance and rename the "Urban Agriculture" area to become a tool leading users to related County and regional resources, and to connect food growers in Arlington.
- B.5 Enhance and support the efforts of Arlington Public Schools (APS) to provide a culture of sustainable practices with regard to urban agriculture and food systems, and a framework for sustainability initiatives in strategic planning and policies, balancing both educational, environmental and health and community aspects. Promote environmental and health education in the schools and support with staff training to encourage communication and sharing of best practices.

## **Section C: Soils and Other Resources for Food Production**

**Objective C:** *To protect and enhance soils in Arlington County, manage waste, water and other resources for food production, and make them available for food producers in the County.*

### **Summary of Recommendations:**

- C.1 Achieve a continuous cycling of soil nutrients via organic waste recovery and composting in order to supply the organic contents and soil nutrients necessary for healthy plant growth.
- C.2 Facilitate providing education on soils regarding their makeup and need for remediation and enhancement.
- C.3 In conjunction with other storm water and water management policies and efforts by the County, facilitate the collection of storm water for use in food production, in residential spaces, community gardens, parks and other public spaces, and on commercial properties.
- C.4 Collect garden implements and supplies for redistribution or for lending out in a "tool library" program. This could be done at the County's recycling facility, by a non-profit, or via a website featuring an "I need – I have" trading site or a garden chat site. VCE currently collects some small tools for community gardening programs.

## **Section D: Food Production in Gardens, Shared Spaces and Urban Settings**

**Objective D:** *To increase food production in Arlington County by identifying new spaces suitable for growing food and applying innovative methods suitable to an urban setting.*

### **Summary of Recommendations:**

- D.1 Conduct and map an inventory of spaces within Arlington County which are viable for food production such as spaces for community gardens or urban farms.
- D.2 Encourage and facilitate the sharing of residential yards, commercial properties and other open spaces with other gardeners or small farmers to bring more land into food production.
- D.3 Actively promote and facilitate the establishment of sustainable community gardens located throughout the County on public lands on public lands, properties owned by faith-based and other organizations, and adjacent to or in close proximity to residential multiple dwelling properties; and formulate incentives for property owners and new developers to establish community food gardens.
- D.4 Work with the Arlington Area Agency on Aging, local senior centers, housing projects, and care facilities to expand the presence of resident-based community gardens.
- D.5 Encourage and facilitate the development of food gardens on Arlington Public Schools (APS) and nearby properties for educational as well as food production purposes.
- D.6 Include food production sites in parks and other land use planning.

- D.7 Enable commercial and larger scale food production by facilitating the availability of growing spaces, restructuring related regulations to encourage such production, promoting best practices applicable to urban settings, encouraging community participation, and facilitating land trusts and other means to preserve growing spaces.
- D.8 Incentivize and promote food production on rooftops, parking decks, government buildings and grounds, and other private and commercial locations.
- D.9 Enhance small business and job creation within the arena of agricultural and gardening pursuits.
- D.10 Facilitate and monitor the keeping of food producing livestock to provide a legal way for residents to avail themselves of fresh eggs, meat and milk at a level within the parameters of an urban environment.

## **Section E: Access to Fresh and Local Foods and Food Distribution**

**Objective E:** *To increase the availability of fresh foods to all Arlington County residents and enhance the food distribution systems to efficiently move local fresh foods from growers to individuals, restaurants, retail markets, and institutions.*

### **Summary of Recommendations:**

- E.1 Improve direct access to fresh and local produce sourced from growers within Arlington and those who are located within the regional foodshed.
- E.2 Increase the access to fresh and local produce for those with inadequate access to such produce due their location in relation to retailers, income level, lack of public transportation, or other mobility issues.
- E.3 Facilitate and incentivize the purchase of fresh and local foods for resale by retailers, from convenience stores to large grocery stores, for use by restaurants and commercial kitchens, and for food service at schools, universities, senior residences, hospitals, and other large institutions.

## Appendix B - Minority Reports

**Minority Report D.10.A** submitted by Rosemary Ciotti, Catie Drew, David Garcia, Sarah Meservey, and Joel Thevoz, and Mary Van Dyke:

*This is a dissenting opinion written on the keeping of livestock. It has been prepared after much research into animal husbandry ordinances around the country.*

Notes: Some cities required set-backs from other property structures, while a small percentage have set-backs from property lines. Almost none require the approval of neighbors, unless it is to apply for a variance to the ordinance. It seems that if it is determined a safe practice it should not be up to the whim of neighbors. Most do not field many unresolved hen-keeping complaints. For instance, since the 2008 ordinance allowing hens in Fort Collins, Colorado, there have been 76 complaints related to chickens out of over 56,000 to animal control. Most were taken care of right away by educating the owner about rules and/or best practices. (can't keep roosters, etc). This being said, there can be problems with raising hens and goats in backyards if proper upkeep is not performed. It is important to have the ability to revoke a permit or license if a person is not following the ordinance requirements. Most areas that allow the keeping of hens and/or goats do not see very many people keep these animals. As of December 2011, 97% of the largest cities in the US by population allow hens.

Suggested ordinance language:

1. Roosters are prohibited.
2. Hens shall be kept in a securely fenced area within the rear yard of the residential property. A coop and pen are required. No more than five hens will be allowed for properties less than a half-acre. For properties greater than a half-acre, residents must apply to the County to keep greater numbers of hens.
3. Hens should be provided with a minimum coop space of four square feet per bird with a minimum of 50 square feet run required per 5 hens (100 sq ft recommended).
4. The coop shall be set back a minimum of 7 feet from side or rear property lines. For all hen keeping, the coop shall be located a minimum of 35 feet from habitable structures on adjacent properties; greater distances are encouraged where practicable. Neighbors could agree to a waiver of this rule.
5. Coops shall be no taller than eight feet in height. The coop and pen shall be designed, constructed, and maintained such that the hens are securely contained.
6. The coop and pen shall be maintained in a clean and sanitary condition. All enclosures shall be constructed and maintained to prevent rats or other rodents from being harbored underneath, within, or within the walls of the enclosure. All feed and other items associated with hen keeping shall be managed to prevent contact with rodents.
7. Only miniature, pygmy, or dwarf goats may be kept. All goats must be dehorned. Males must be neutered. For properties less than an acre, no more or less than two goats may be kept, except that offspring may be kept for up to 12 weeks from birth. For properties greater than an acre, residents must apply to the County for permission to keep greater numbers.
8. The goat shed must be at least 10 square feet and should be vented and secured from predators. There must be a minimum pen area of 400 square feet, excluding shed.
9. The shed shall be set back a minimum of 7 feet from side or rear property lines, and shall be located a minimum of 35 feet from habitable structures on adjacent properties; greater distances are encouraged where practicable. Neighbors could agree to a waiver of this rule.
10. Residents must register with the county to keep hens or goats. This can be done online by reading information and completing an application. A permitting fee of \$30 per year applies.



**Minority Report D.10.B** submitted by Darnell Carpenter:

While there can be support for some level of liberalization to the set-back requirement I believe that we should state emphatically that no change to the code occur without:

1. Comprehensive study as to demand among homeowners
2. Comprehensive study as to claims of scarcity of fresh, cage free, steroid free, antibiotic free eggs, milk and meat.
3. Comprehensive study defining the population with food security challenges.
  - a. Homeowners
  - b. Renters
  - c. How anticipated contribution from item 1 will solve or alleviate food security challenges.
4. Arlington Count Enforcement Strategy be developed with identification of staff, roles and funding levels prior to permitting back yard hens.

## Appendix C - Inventory of Existing County Programs

Key to abbreviations:

AC = Arlington County  
 ACE = Arlingtonians for a Clean Environment  
 AFAC = Arlington Food Assistance Center  
 APS = Arlington Public Schools  
 COG = Metropolitan Washington Council of Governments and other COGs  
 DES = Arlington County Department of Environmental Services  
 DHS = Arlington County Department of Human Services  
 DPR = Arlington County Department of Parks and Recreation  
 GMU = George Mason University  
 NVSWCD = Northern Virginia Soil and Water Conservation District  
 SNAP = Supplemental Nutrition Assistance Program  
 USDA = United States Department of Agriculture  
 VCE = Virginia Cooperative Extension  
 VSU = Virginia State University  
 VT = Virginia Tech  
 WIC = Special Supplemental Nutrition Program for Women, Infants and Children

| Program/Activity                                                                                                                                                                                            | Citations/Links                                                                                                                                                                                                                                           | Who                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Arlington County Code – Chapter 2: Animals and Fowl discusses the keeping of fowl, pets and livestock in general<br>Updated 9-2011                                                                          | <a href="http://www.arlingtonva.us/departments/CountyBoard/CountyCode/file74496.pdf">http://www.arlingtonva.us/departments/CountyBoard/CountyCode/file74496.pdf</a>                                                                                       | AC                  |
| Arlington County Code on Garbage, Refuse and Weeds: updated 10-2012                                                                                                                                         | <a href="http://www.arlingtonva.us/departments/CountyBoard/CountyCode/file74506.pdf">http://www.arlingtonva.us/departments/CountyBoard/CountyCode/file74506.pdf</a>                                                                                       | AC                  |
| Arlington County Community Energy Plan (CEP), Draft Community Implementation Framework (CEIF) and Community Engagement Plan & resulting programs                                                            | <a href="http://freshaireva.us/2012/04/energyplan/">http://freshaireva.us/2012/04/energyplan/</a>                                                                                                                                                         | AC                  |
| Arlington County community forum PLACE Space network for civic engagement                                                                                                                                   | <a href="http://arlingtonplace.us/">http://arlingtonplace.us/</a>                                                                                                                                                                                         | AC                  |
| Arlington Community Garden at Fort Barnard collects food waste from AFAC for composting and won a Grow Inspired Garden Grant from Mrs. Meyers Clean Day, to install a Nomadic Garden Demonstration Project. | <a href="http://www.arlingtonva.us/departments/ParksRecreation/scripts/facilities/CommunityGardens.aspx">http://www.arlingtonva.us/departments/ParksRecreation/scripts/facilities/CommunityGardens.aspx</a>                                               | AC - DPR/Non-profit |
| Arlington County Detention Center collects appropriate food waste for composting, pilot from 2010.                                                                                                          | <a href="http://www.arlingtongreengames.com/wp-content/uploads/2012/09/Arlington-County-Solid-Waste-Bureau-Kristen-Goldman.pdf">http://www.arlingtongreengames.com/wp-content/uploads/2012/09/Arlington-County-Solid-Waste-Bureau-Kristen-Goldman.pdf</a> | AC                  |
| Arlington County Environment and Energy Conservation Commission, E2C2                                                                                                                                       | <a href="http://www.arlingtonva.us/departments/commissions/e2c2/EnvironmentalServicesE2c2Main.aspx">http://www.arlingtonva.us/departments/commissions/e2c2/EnvironmentalServicesE2c2Main.aspx</a>                                                         | AC                  |

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| Arlington County Latino Roundtable Forum (Mesa Redonda Latina) meeting on Urban Agriculture                                                                                                                                                                                                                                                                                                                                                            | <a href="http://www.arlingtonva.us/portals/topics/documents/file88909.pdf">http://www.arlingtonva.us/portals/topics/documents/file88909.pdf</a>                                                                                                                                                                                                                                                            | AC        |
| Arlington County Library resources on gardening, farming and urban agriculture; weekly garden talks sponsored by VCE Master Gardeners and AFAC; demonstration garden maintained by AFAC volunteers                                                                                                                                                                                                                                                     | <a href="http://library.arlingtonva.us/">http://library.arlingtonva.us/</a><br><a href="http://library.arlingtonva.us/events/garden-talks/">http://library.arlingtonva.us/events/garden-talks/</a>                                                                                                                                                                                                         | AC - LIB  |
| Arlington County Out of School Time Advisory Council (committee of Partnership for Children, Youth and Families)                                                                                                                                                                                                                                                                                                                                       | <a href="http://www.arlingtonva.us/departments/Commissions/page86082.aspx">http://www.arlingtonva.us/departments/Commissions/page86082.aspx</a>                                                                                                                                                                                                                                                            | AC<br>APS |
| Arlington County Zoning Ordinance (AZCO) Section 32 A Landscaping, updated April 2010                                                                                                                                                                                                                                                                                                                                                                  | <a href="http://building.arlingtonva.us/wp-content/uploads/2012/04/ACZO-Section32A.pdf">http://building.arlingtonva.us/wp-content/uploads/2012/04/ACZO-Section32A.pdf</a>                                                                                                                                                                                                                                  | AC        |
| Arlington Partnership for Children, Youth and Families                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="http://www.apcyf.org/">http://www.apcyf.org/</a>                                                                                                                                                                                                                                                                                                                                                  | AC        |
| Arlington's food assistance programs accessed through CommonHelp webportal – includes programs such as SNAP, food stamps, WIC and Senior SNAP, and referral to AFAC, Arlington Food Assistance Center                                                                                                                                                                                                                                                  | <a href="https://commonhelp.virginia.gov/access/">https://commonhelp.virginia.gov/access/</a>                                                                                                                                                                                                                                                                                                              | AC - DHS  |
| FitArlington launched Arlington Healthy Community Action Team (HCAT) January 2013 thru June 2014 with grant from VA Foundation for Healthy Youth to promote:<br>- eating fruits and vegetables and healthy lifestyles<br>- obesity reduction/prevention education<br>- after school physical activity (SPARK program)<br>- active recess at schools<br>- mini-grants for community gardening and nutrition programs at multi-residential housing sites | <a href="http://news.arlingtonva.us/releases/arlington-county-board-chairman-rallies-community-to-help-reduce-childhood-obesity">http://news.arlingtonva.us/releases/arlington-county-board-chairman-rallies-community-to-help-reduce-childhood-obesity</a><br><a href="http://www.arlingtonva.us/portals/topics/FitArlingtonHCAT.aspx">http://www.arlingtonva.us/portals/topics/FitArlingtonHCAT.aspx</a> | AC - DPR  |
| Green roofs on Arlington County Courthouse and Walter Reed Community Center, currently growing non-food plants                                                                                                                                                                                                                                                                                                                                         | <a href="http://www.arlingtonva.us/departments/EnvironmentalServices/Sustainability/PDFfiles/file84393.pdf">http://www.arlingtonva.us/departments/EnvironmentalServices/Sustainability/PDFfiles/file84393.pdf</a>                                                                                                                                                                                          | AC        |
| Reeves Historic Farmhouse – Request for Interest, March 2013                                                                                                                                                                                                                                                                                                                                                                                           | <a href="http://www.arlingtonva.us/departments/ParksRecreation/scripts/planning/ParksRecreationScripts/PlanningMasterPlanning.aspx#reeves">http://www.arlingtonva.us/departments/ParksRecreation/scripts/planning/ParksRecreationScripts/PlanningMasterPlanning.aspx#reeves</a>                                                                                                                            | AC - DPR  |
| The Arlington County Department of Environmental Services piloting collection of food wastes for compost as part of its 20-Year Solid Waste Management Plan. Food waste collection for compost in Arlington (2013):<br><ul style="list-style-type: none"> <li>• Arlington County Detention Center</li> <li>• EPA in Potomac Yard</li> <li>• Crystal City Marriott</li> <li>• Hotel Palomar</li> <li>• Lebanese Taverna Market</li> </ul>               | <a href="http://www.arlingtongreengames.com/wp-content/uploads/2012/09/Arlington-County-Solid-Waste-Bureau-Kristen-Goldman.pdf">http://www.arlingtongreengames.com/wp-content/uploads/2012/09/Arlington-County-Solid-Waste-Bureau-Kristen-Goldman.pdf</a>                                                                                                                                                  | AC - DES  |

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| <ul style="list-style-type: none"> <li>• Residence Inn Capital View</li> <li>• Whole Foods Market</li> </ul>                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                        |                               |
| Water-only rates available for such purposes as irrigation where waste water does enter the sewer.. Arlington County Code, Utilities Chapter 26-7, updated 4-2012                                                                                                                                                         | <a href="http://www.arlingtonva.us/departments/EnvironmentalServices/PermitsAndInspection/Permits/WaterSewerPermits.aspx">http://www.arlingtonva.us/departments/EnvironmentalServices/PermitsAndInspection/Permits/WaterSewerPermits.aspx</a>                                                                                                                                                                          | AC - DES                      |
| Westover Library: Girl and Boy Scouts installed eight raised bed gardens (2013). APS Teen Parenting Program grows and learns to prepare foods (April 2013). Summer childrens' programs will include garden activities.                                                                                                    | <a href="https://www.facebook.com/ArlingtonVAPublicLibrary/posts/602622373083208">https://www.facebook.com/ArlingtonVAPublicLibrary/posts/602622373083208</a>                                                                                                                                                                                                                                                          | AC - LIB<br>APS<br>Non-profit |
| Arlington County Department of Environmental Services leaf and brush collection to create leaf mulch and wood mulch for use by residents, available for pick up or delivery.                                                                                                                                              | <a href="http://www.arlingtonva.us/departments/EnvironmentalServices/SW/Get%20It%20Done%20Online/page83505.aspx">http://www.arlingtonva.us/departments/EnvironmentalServices/SW/Get%20It%20Done%20Online/page83505.aspx</a>                                                                                                                                                                                            | AC - DES                      |
| Arlington County: Composting information, including sale of Compost Bins to residents                                                                                                                                                                                                                                     | <a href="http://www.arlingtonva.us/departments/EnvironmentalServices/SW/Residential/page83816.aspx">http://www.arlingtonva.us/departments/EnvironmentalServices/SW/Residential/page83816.aspx</a>                                                                                                                                                                                                                      | AC - DES                      |
| Chesapeake Bay Stewardship Fund \$80,000 matching-fund grant to Arlington County for continuing the second year of its StormwaterWise Landscapes Program (2013- 2014). The cost-sharing grants to residents, business and homeowner associations focus on reducing water runoff and pollution through landscape projects. | <a href="http://www.arlingtonva.us/departments/EnvironmentalServices/Sustainability/page87826.aspx">http://www.arlingtonva.us/departments/EnvironmentalServices/Sustainability/page87826.aspx</a><br>Alliance for the Chesapeake Bay National Fish and Wildlife Foundation:<br><a href="http://www.nfwf.org/Pages/chesapeake/home1.aspx#.UW7_ayswbQg">http://www.nfwf.org/Pages/chesapeake/home1.aspx#.UW7_ayswbQg</a> | AC - DES<br>Non-profit        |
| Arlington County in conjunction with Northern Virginia Rain Barrel program (Northern Virginia Soil and Water Conservation District): workshops, education and sales of rain barrels.                                                                                                                                      | <a href="http://www.arlingtonva.us/departments/EnvironmentalServices/Sustainability/EnvironmentalServicesEpoRainBarrel.aspx">http://www.arlingtonva.us/departments/EnvironmentalServices/Sustainability/EnvironmentalServicesEpoRainBarrel.aspx</a><br><br><a href="http://www.fairfaxcounty.gov/nvswcd/">http://www.fairfaxcounty.gov/nvswcd/</a>                                                                     | AC – DES<br>NVSWCD            |
| Arlington Beautification Committee                                                                                                                                                                                                                                                                                        | <a href="http://www.arlingtonva.us/departments/ParksRecreation/scripts/parks/ParksRecreationScriptsParksBeautification-bak.aspx">http://www.arlingtonva.us/departments/ParksRecreation/scripts/parks/ParksRecreationScriptsParksBeautification-bak.aspx</a>                                                                                                                                                            | AC - DPR                      |
| Arlington County Park and Recreation Commission                                                                                                                                                                                                                                                                           | <a href="http://www.arlingtonva.us/departments/commissions/ParksRecreationCommissions/ParksRecreationScriptsCommissionsParkCommission.aspx">http://www.arlingtonva.us/departments/commissions/ParksRecreationCommissions/ParksRecreationScriptsCommissionsParkCommission.aspx</a>                                                                                                                                      | AC - DPR                      |
| Arlington County's Community Gardens. There are just over 200 garden plots at eight locations (seven of                                                                                                                                                                                                                   | <a href="http://www.arlingtonva.us/departments/ParksRecreation/scripts/f">http://www.arlingtonva.us/departments/ParksRecreation/scripts/f</a>                                                                                                                                                                                                                                                                          | AC - DPR                      |

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| the sites have access to water). Long wait lists (2013). Fees to cover expenses. Individual organizations and sets of by-laws.                                                                                                                                                    | <a href="#">activities/CommunityGardens.aspx</a>                                                                                                                                                                                                                                                                                   |                         |
| Arlington County Urban Agriculture Initiative (main page) and Urban Agriculture Task Force                                                                                                                                                                                        | <a href="http://www.arlingtonva.us/portals/topics/UrbanAg.aspx">http://www.arlingtonva.us/portals/topics/UrbanAg.aspx</a><br><a href="http://www.arlingtonva.us/departments/Commissions/ParksRecreationCommissions/page85509.aspx">http://www.arlingtonva.us/departments/Commissions/ParksRecreationCommissions/page85509.aspx</a> | AC – DPR Advisory Group |
| Adult education enrichment classes on vegetable and herb gardening, honeybees, composting and soil management, trees and shrubs, and related topics, as well as food preparation and preservation.                                                                                | <a href="http://www.apsva.us/adulted">http://www.apsva.us/adulted</a><br><a href="http://offices.ext.vt.edu/arlington/">http://offices.ext.vt.edu/arlington/</a><br><a href="http://msi.gmu.edu/pdc.html">http://msi.gmu.edu/pdc.html</a>                                                                                          | APS<br>VCE<br>GMU       |
| APS Career Center Culinary Arts and Sciences program                                                                                                                                                                                                                              | <a href="http://www.apsva.us/Page/8702">http://www.apsva.us/Page/8702</a>                                                                                                                                                                                                                                                          | APS                     |
| APS Career Center, has greenhouse and grew seedlings for AFAC and food for animals kept on site; Culinary Arts program                                                                                                                                                            | <a href="http://www.apsva.us/Domain/1964">http://www.apsva.us/Domain/1964</a>                                                                                                                                                                                                                                                      | APS                     |
| APS Food and Nutrition Services                                                                                                                                                                                                                                                   | <a href="http://www.arlington.k12.va.us/Page/2458">http://www.arlington.k12.va.us/Page/2458</a>                                                                                                                                                                                                                                    | APS                     |
| APS Green Scene videos                                                                                                                                                                                                                                                            | <a href="http://www.apsva.us/Page/19517">http://www.apsva.us/Page/19517</a>                                                                                                                                                                                                                                                        | APS                     |
| APS School Breakfast and Lunch menus                                                                                                                                                                                                                                              | <a href="http://www.apsva.us/Page/2457">http://www.apsva.us/Page/2457</a>                                                                                                                                                                                                                                                          | APS                     |
| APS Schoolyard Gardens – there are learning gardens at most elementary schools, middle schools and high schools and APS programs. Several school garden communities donate produce to school cafeteria occasionally or to AFAC. New schools being designed with learning gardens. |                                                                                                                                                                                                                                                                                                                                    | APS                     |
| Green roofs on schools (currently not used for food production) e.g. Washington-Lee High School And being built at Yorktown High School and in design stage for new elementary school at WMS site                                                                                 | <a href="http://www.apsva.us/cms/lib2/VA01000586/Centricity/Domain/2159/SustainableSites.html">http://www.apsva.us/cms/lib2/VA01000586/Centricity/Domain/2159/SustainableSites.html</a>                                                                                                                                            | APS                     |
| Operation Rain Barrel art competition and silent auction, sponsored by Arlington campus of George Mason University with student participation from Arlington Public Schools                                                                                                       | <a href="http://green.gmu.edu/community/earthweek/operationrainbarrel.html">http://green.gmu.edu/community/earthweek/operationrainbarrel.html</a>                                                                                                                                                                                  | APS<br>GMU              |
| APS Comprehensive School Health Committee                                                                                                                                                                                                                                         | <a href="http://www.apsva.us/Page/1291">http://www.apsva.us/Page/1291</a>                                                                                                                                                                                                                                                          | APS advisory committee  |
| Aquaponics and vertical gardening installation at Main Event Caterers                                                                                                                                                                                                             | <a href="http://maineventcaterers.com/">http://maineventcaterers.com/</a>                                                                                                                                                                                                                                                          | Private Business        |



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| Arlington County hosts seven Farmers' Markets. One is county-managed, the others are managed by business improvement districts (BIDs) or FreshFarm Markets                                                                                             | <a href="http://www.arlingtonva.us/portals/topics/FarmersMarkets.aspx">http://www.arlingtonva.us/portals/topics/FarmersMarkets.aspx</a><br><a href="http://freshfarmmarkets.org/">http://freshfarmmarkets.org/</a>                                                                                                                                                                                            | Business (BIDs) AC |
| Community Supported Agriculture (CSA) growers who deliver to locations within Arlington County on an annual subscription basis                                                                                                                         | Several                                                                                                                                                                                                                                                                                                                                                                                                       | Business           |
| Crystal City Compost Collection program collects food waste at the weekly Crystal City Farmers' Market and Crystal City BID events. Special containers provided and waste is delivered to composters by DC commercial composting company EnviRelation. | <a href="http://www.crystalcity.org/green/compost">http://www.crystalcity.org/green/compost</a><br><a href="http://www.envirelation.com/main_page.html">http://www.envirelation.com/main_page.html</a>                                                                                                                                                                                                        | Business           |
| MOMs Organic Market buys local organic products when possible and composts all its green food scraps.                                                                                                                                                  | <a href="http://momsorganicmarket.com/common/news/store_news.asp?task=store_news&amp;SID_store_news=109&amp;storeID=A6B40AE98C7842A98FC8DE4784880288&amp;RedirShopperID=A6B40AE98C7842A98FC8DE4784880288">http://momsorganicmarket.com/common/news/store_news.asp?task=store_news&amp;SID_store_news=109&amp;storeID=A6B40AE98C7842A98FC8DE4784880288&amp;RedirShopperID=A6B40AE98C7842A98FC8DE4784880288</a> | Business           |
| Virginia Hospital Center                                                                                                                                                                                                                               | <a href="http://www.virginiahospitalcenter.com/aboutus/services/food.aspx">http://www.virginiahospitalcenter.com/aboutus/services/food.aspx</a>                                                                                                                                                                                                                                                               | Business           |
| Whole Foods Market supports local growers, school yards, health and nutrition                                                                                                                                                                          | <a href="http://www.wholefoodsmarket.com/whole-foods-market">http://www.wholefoodsmarket.com/whole-foods-market</a>                                                                                                                                                                                                                                                                                           | Business           |
| Food Access Research Atlas (USDA, ERS)                                                                                                                                                                                                                 | <a href="http://www.ers.usda.gov/data-products/food-access-research-atlas.aspx#.UW8opiswbQg">http://www.ers.usda.gov/data-products/food-access-research-atlas.aspx#.UW8opiswbQg</a>                                                                                                                                                                                                                           | Federal            |
| USDA urban agriculture information                                                                                                                                                                                                                     | <a href="http://afsic.nal.usda.gov/farms-and-community/urban-agriculture">http://afsic.nal.usda.gov/farms-and-community/urban-agriculture</a>                                                                                                                                                                                                                                                                 | Federal            |
| George Mason Office of Sustainability                                                                                                                                                                                                                  | <a href="http://green.gmu.edu/">http://green.gmu.edu/</a>                                                                                                                                                                                                                                                                                                                                                     | GMU                |
| APS GreenSchools, an independent network of parents, educators and interested citizens                                                                                                                                                                 | <a href="http://groups.yahoo.com/group/apsgreenschools/">http://groups.yahoo.com/group/apsgreenschools/</a>                                                                                                                                                                                                                                                                                                   | Non-profit         |
| Arcadia Center for Sustainable Food and Agriculture promotes equitable and sustainable food system in the DC metro area                                                                                                                                | <a href="http://arcadiafood.org/">http://arcadiafood.org/</a>                                                                                                                                                                                                                                                                                                                                                 | Non-profit         |
| Arlington Arts Center, Green Acres interactive art project focused on art and agriculture, spring-summer-fall 2013                                                                                                                                     | <a href="https://www.arlingtonartscenter.org/green-acres">https://www.arlingtonartscenter.org/green-acres</a>                                                                                                                                                                                                                                                                                                 | Non-profit         |
| Arlington Committee of 100 presentations on hen keeping and urban agriculture (2012, January 2013)                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                               | Non-profit         |

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| Arlington County Tree Canopy Fund (2007 on) grants for tree planting stewardship                                                                                                                                                                                                                                                                                                                                                      | <p>Arlingtonians for a Clean Environment<br/> <a href="http://www.arlingtonenvironment.org/">http://www.arlingtonenvironment.org/</a></p> <p>Arlington Urban Forestry Commission<br/> <a href="http://www.arlingtonva.us/departments/Commissions/ParksRecreationCommissions/ParksRecreationScriptsCommissionsUrbanForestryCommission.aspx">http://www.arlingtonva.us/departments/Commissions/ParksRecreationCommissions/ParksRecreationScriptsCommissionsUrbanForestryCommission.aspx</a></p> | Non-profit<br>AC - DPR            |
| Arlington Food Assistance Center (AFAC), a large food pantry headquartered in Shirlington, provides supplementary groceries and fresh produce for 1,500 low-income families each week. Programs include Plot Against Hunger and cooking and nutrition education.                                                                                                                                                                      | <a href="http://www.afac.org/">http://www.afac.org/</a>                                                                                                                                                                                                                                                                                                                                                                                                                                       | Non-profit                        |
| Arlingtonians for a Clean Environment (ACE) promotes stewardship of our natural resources and sustainable lifestyle. Events include the Green Living Expo and Green Home and Garden Tour, stream clean-ups.                                                                                                                                                                                                                           | <a href="http://www.arlingtonenvironment.org/">http://www.arlingtonenvironment.org/</a>                                                                                                                                                                                                                                                                                                                                                                                                       | Non-profit                        |
| Arlington Interfaith Council provides direct services to people in need, including food needs                                                                                                                                                                                                                                                                                                                                         | <a href="http://www.arlingtoninterfaith.org/">http://www.arlingtoninterfaith.org/</a>                                                                                                                                                                                                                                                                                                                                                                                                         | Non-profit                        |
| Beekeepers Association of Northern Virginia, association of beekeepers offering education and mentoring to those interested in beekeeping.                                                                                                                                                                                                                                                                                            | <a href="http://www.beekeepersnova.org">www.beekeepersnova.org</a>                                                                                                                                                                                                                                                                                                                                                                                                                            | Non-profit                        |
| BRAVO (Buyers and Renters Arlington Voice) "We Grow Arlington" initiative is working with landlords and property owners to enable community garden space for tenants at rental properties                                                                                                                                                                                                                                             | <a href="http://www.bravotenants.org/">http://www.bravotenants.org/</a><br><a href="http://bravotenants.org/blog/we-grow-arlington/">http://bravotenants.org/blog/we-grow-arlington/</a>                                                                                                                                                                                                                                                                                                      | Non-profit                        |
| Columbia Pike Redevelopment Organization (CPRO) grant from AFAC for the first year's costs of processing federal Supplemental Nutrition Assistance Program (SNAP) EBT debit cards at the Columbia Pike Farmers' Market, designed to help low-income families obtain healthy food while supporting farmers and others who sell produce at the market. The Arlington County Department of Human Services will also support this effort. | <a href="http://www.fns.usda.gov/snap/ebt/fm.htm">http://www.fns.usda.gov/snap/ebt/fm.htm</a>                                                                                                                                                                                                                                                                                                                                                                                                 | Non-profit<br>AC - DHS<br>Federal |
| Culpepper Gardens Senior Center – raised bed garden plots accessible for seniors to garden                                                                                                                                                                                                                                                                                                                                            | <a href="http://www.culpeppergarden.org/">http://www.culpeppergarden.org/</a><br><a href="http://www.culpeppergarden.org/gardens.html">http://www.culpeppergarden.org/gardens.html</a>                                                                                                                                                                                                                                                                                                        | Non-profit                        |
| Gardens in the community growing for AFAC Plot Against Hunger include the Arlington County Central Library Peoples' Garden, various churches and private lands                                                                                                                                                                                                                                                                        | <a href="http://www.afac.org/plot-against-hunger/">http://www.afac.org/plot-against-hunger/</a>                                                                                                                                                                                                                                                                                                                                                                                               | Non-profit<br>AC – LIB, DPR       |

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| <p>Groups exploring home hen keeping and related issues</p> <ul style="list-style-type: none"> <li>• Arlington Egg Project</li> <li>• Backyards, not Barnyards</li> </ul>                                                                                                                                                                                                                    | <p><a href="http://www.arlingtonva.us/departments/Commissions/page86874.aspx">http://www.arlingtonva.us/departments/Commissions/page86874.aspx</a></p> <p><a href="http://arlingtoneggproject.org/">http://arlingtoneggproject.org/</a></p> <p><a href="http://www.backyardsnotbarnyards.org">http://www.backyardsnotbarnyards.org</a></p> | Non-profit                                     |
| <p>LAWNS 2 LETTUCE 4 LUNCH, a program of the Reevesland Learning Center, is a school and community collaboration to promote healthy eating, to learn how to grow our own food, and to build community.</p>                                                                                                                                                                                   | <p><a href="http://www.apsva.us/site/Default.aspx?PageID=16078">http://www.apsva.us/site/Default.aspx?PageID=16078</a></p> <p><a href="http://www.washingtonpost.com/wp-dyn/content/article/2010/06/16/AR2010061602024.html">http://www.washingtonpost.com/wp-dyn/content/article/2010/06/16/AR2010061602024.html</a></p>                  | Non-profit                                     |
| <p>Many Arlington churches and faith-based organizations have food pantries and store and prepare food</p>                                                                                                                                                                                                                                                                                   | <p>Contact Arlington Interfaith Council or individual organizations for details</p>                                                                                                                                                                                                                                                        | Non-profit                                     |
| <p>Meals on Wheels of Northern Virginia (MOW)</p>                                                                                                                                                                                                                                                                                                                                            | <p><a href="http://www.mealsonwheelsarlington.com/">http://www.mealsonwheelsarlington.com/</a></p>                                                                                                                                                                                                                                         | Non-profit                                     |
| <p>Northern Virginia Conservation Trust</p>                                                                                                                                                                                                                                                                                                                                                  | <p><a href="http://www.nvct.org/">http://www.nvct.org/</a></p>                                                                                                                                                                                                                                                                             | Non-profit                                     |
| <p>NOVA Food Coalition Working Group on food system policy and networking</p>                                                                                                                                                                                                                                                                                                                | <p>Contact AFAC for googlegroup</p>                                                                                                                                                                                                                                                                                                        | Non-profit                                     |
| <p>Plot Against Hunger, an AFAC community outreach program promoting garden space devoted to growing fresh foods for AFAC clients in residential, school, library and other gardens. Education and mentoring are offered for gardeners and food preparation tips and recipes for AFAC clients.</p>                                                                                           | <p><a href="http://www.afac.org/plot-against-hunger/">http://www.afac.org/plot-against-hunger/</a></p>                                                                                                                                                                                                                                     | Non-profit                                     |
| <p>Reevesland Learning Center, non-profit, seeks collaboration with Arlington County to rehabilitate the Reeves historic farmhouse, location of the last dairy farm in Arlington. The farmhouse will be a centerpiece for grassroots urban agriculture used both by the APS community for curriculum-based learning related to growing and eating healthy foods as well as by residents.</p> | <p><a href="http://reevesland.wordpress.com/">http://reevesland.wordpress.com/</a></p>                                                                                                                                                                                                                                                     | Non-profit                                     |
| <p>Metropolitan Washington Council of Governments (MWCOC) on organics composting, regional agricultural initiative</p>                                                                                                                                                                                                                                                                       | <p><a href="http://www.mwcog.org/">http://www.mwcog.org/</a></p> <p><a href="http://www.mwcog.org/environment/green/agriculture/">http://www.mwcog.org/environment/green/agriculture/</a></p>                                                                                                                                              | Regional COG                                   |
| <p>National Capital Region Organics Task Force group of government, public interest, institutional and business partners focusing on expanding recovery, full capture and utilization of organic materials in the region.</p>                                                                                                                                                                | <p><a href="http://www.ilsr.org/national-capital-region-organics-task-force/">http://www.ilsr.org/national-capital-region-organics-task-force/</a></p>                                                                                                                                                                                     | Regional Institute for Local Self-Reliance COG |

|                                                                                                                                                                                            |                                                                                                                                                                                                                                                               |                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Northern Virginia Regional Park Authority<br>Potomac Overlook Regional Park, Arlington County<br>Upton Hill Regional Park, Arlington County)                                               | <a href="http://www.nvrpa.org/">http://www.nvrpa.org/</a><br><a href="http://www.nvrpa.org/park/potomac_overlook">http://www.nvrpa.org/park/potomac_overlook</a><br><a href="http://www.nvrpa.org/park/upton_hill/">http://www.nvrpa.org/park/upton_hill/</a> | Regional<br>Nonprofit              |
| Northern Virginia Soil and Water Conservation District<br>workshops on building composters, rain barrels and<br>rain gardens, and other educational programs.                              | <a href="http://www.fairfaxcounty.gov/nvs_wcd/">http://www.fairfaxcounty.gov/nvs_wcd/</a>                                                                                                                                                                     | Regional                           |
| Potomac Overlook Regional Park, a NVRPA facility,<br>including the Organic Vegetable Garden MGNV<br>demonstration garden                                                                   | <a href="http://mgmv.org/demonstration-gardens/potomac-overlook-regional-park-organic-vegetable-garden/">http://mgmv.org/demonstration-gardens/potomac-overlook-regional-park-organic-vegetable-garden/</a>                                                   | Regional                           |
| VCE 4-H programs for children and youth, including<br>gardening experiences and Junior Master Garden<br>programs                                                                           | <a href="http://offices.ext.vt.edu/arlington/programs/4h/index.html">http://offices.ext.vt.edu/arlington/programs/4h/index.html</a>                                                                                                                           | VCE                                |
| VCE Master Food Volunteers, certification and<br>programs                                                                                                                                  | <a href="http://offices.ext.vt.edu/fairfax/programs/fcs/MFV_Fairfax_Arlington.html">http://offices.ext.vt.edu/fairfax/programs/fcs/MFV_Fairfax_Arlington.html</a>                                                                                             | VCE                                |
| VCE Master Gardeners plant clinics at Central Library<br>and area Farmers' Markets                                                                                                         | <a href="http://mgmv.org/programs-activities/vce-master-gardener-plant-clinics/">http://mgmv.org/programs-activities/vce-master-gardener-plant-clinics/</a>                                                                                                   | VCE<br>AC-DPR                      |
| VCE Agriculture and Natural Resources sponsored<br>Master Gardeners public education materials and<br>programs on food gardening, composting, water<br>conservation, sustainable practices | <a href="http://offices.ext.vt.edu/arlington/programs/anr/">http://offices.ext.vt.edu/arlington/programs/anr/</a><br><a href="http://mgmv.org/">http://mgmv.org/</a>                                                                                          | VCE<br>AC-DPR                      |
| VCE Nutrition programs                                                                                                                                                                     | <a href="http://offices.ext.vt.edu/arlington/programs/fcs/arlington_nutrition.html">http://offices.ext.vt.edu/arlington/programs/fcs/arlington_nutrition.html</a>                                                                                             | VCE                                |
| VCE Family Nutrition Program                                                                                                                                                               | <a href="http://offices.ext.vt.edu/arlington/programs/fcs/arlington_FNP.htm">http://offices.ext.vt.edu/arlington/programs/fcs/arlington_FNP.htm</a>                                                                                                           | VCE, Federal<br>FNP                |
| AFAC Food Security Surveys, conducted by Virginia<br>Tech, Arlington Campus, Spring 2013                                                                                                   | <a href="http://www.afac.org/">http://www.afac.org/</a>                                                                                                                                                                                                       | Non-profit                         |
| Arlington restaurants use local food sources on their<br>menus. Several participate in Local Food Local Chef<br>Program, and Arlington Green Games for Restaurants.                        | <a href="http://www.arlingtonva.us/departments/ParksRecreation/scripts/programs/LocalFoodsLocalChefs.aspx">http://www.arlingtonva.us/departments/ParksRecreation/scripts/programs/LocalFoodsLocalChefs.aspx</a>                                               | Businesses<br>AC – DPR<br>AC - DES |

## Appendix D - Resources

### Executive Summary

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Hunger and Environmental Nutrition: <http://www.hendpg.org/hen.cfm?page=resources>

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Schoolyard Gardens - most schools now have gardens, see APS home page to contact schools individually  
APS Comprehensive School Health Committee: <http://www.apsva.us/Page/1291>  
APS Goes Green  
APS Green Scene videos  
APS Sustainability Committee

Lawns 2 Lettuces 4 Lunch – see Arlington Public Schools, Ashlawn ES, and Reevesland Learning Center  
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Project Learning Tree (and PLT's Green Schools program): <http://www.plt.org/>

ServSafe Food Handling program: <https://www.servsafe.com/>

Temple University, Sustainable Food Systems:  
[http://www.temple.edu/bulletin/academic\\_programs/schools\\_colleges/ambler/programs/sustainable\\_food\\_minor.shtml](http://www.temple.edu/bulletin/academic_programs/schools_colleges/ambler/programs/sustainable_food_minor.shtml)

US Department of Education Green Ribbon Schools Award: <http://www2.ed.gov/programs/green-ribbon-schools/index.html>

VA Naturally: <http://www.deq.virginia.gov/ConnectWithDEQ/EnvironmentalInformation/VirginiaNaturally.aspx>

Virginia Cooperative Extension: <http://www.ext.vt.edu/>

Virginia Tech College of Agriculture and Life Sciences, Civic Agriculture and Food Systems:  
<http://www.cals.vt.edu/prospective/majors/civic-ag-minor/index.html>

## **Section C – Soil and Other Food Production Resources**

Compost Cab: <http://compostcab.com/>

Environmental Protection Agency: <http://www.epa.gov/compost/>

Food and Yard Waste – City of Seattle:  
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## **Section D – Action Plan for Local Food Growing Opportunities**

American Community Gardening Association: <http://www.communitygarden.org/>

Backyard Hens – see Chicken Keeping

Backyard Sharing – see Sharing Yards

BK Farmyards: <http://bkfarmyards.blogspot.com/>

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<http://www.cityfarmer.org/sharingBackyards.html>

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Yard Sharing – see Sharing Yards

Your Backyard Farmer: [www.yourbackyardfarmer.com](http://www.yourbackyardfarmer.com)

## **Section E – Access to Fresh and Local Foods and Food Distribution**

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Project for Public Spaces – Public Markets

[www.pps.org/reference/reference-categories/markets-articles](http://www.pps.org/reference/reference-categories/markets-articles)

Food Deserts – see Access Issues/Food Deserts

### **Food Hubs/Online Food Hubs**

Blue Ridge Food Ventures [www.blueridgefoodventures.org](http://www.blueridgefoodventures.org)

Local Food Hub, Charlottesville, VA. <http://localfoodhub.org/>

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[http://www.eatsmartmovemorenc.com/TheEvidence/Texts/Convergence\\_Partnership\\_HEAL.pdf](http://www.eatsmartmovemorenc.com/TheEvidence/Texts/Convergence_Partnership_HEAL.pdf)

Robert Wood Johnson Foundation. Action Strategies for Healthy Communities.  
<http://www.rwjf.org/en/research-publications/find-rwjf-research/2009/05/action-strategies-toolkit.htmls>

SNAP/WIC Benefits  
Fair Food Network <http://www.fairfoodnetwork.org/>

Wholesome Wave: Nourishing Neighborhoods Across America. <http://www.wholesomewave.org>

Wallace Center, Winrock International: <http://www.wallacecenter.org>

Winrock International: <http://www.winrock.org>

## Appendix E - Virginia Food System

### Participating Organizations

**Appalachian Sustainable Development:** This non-profit strives to develop economically viable, sound, and socially just opportunities for Appalachian Virginia and Tennessee farmers, forest land owners, food and forest product producers, and communities.

**Catawba Sustainability Center:** Located on 377 acres in the Catawba Valley, this center is an experiential showcase for university education and engagement with the local community - a place to practice, demonstrate, learn, and teach about sustainability issues that affect our world today and into the future. In 1988, the land was given to Virginia Tech.

**Center for Rural Virginia:** The Rural Center's goal is to generate solutions that empower local governments and the private sector to work together. The Center's mission is to assemble good information, facilitate debate and build a consensus at the local level to create coordinated policy and economic action.

**Federation of Virginia Food Banks:** This is a nonprofit state association of food banks and is the largest hunger-relief network in the state. Composed of the seven regional Virginia/Washington DC food banks, the Federation supports the food banks in providing food, funding, education, advocacy and awareness services and programs throughout the Commonwealth.

**Harrisonburg City Public Schools:** Located in the Shenandoah Valley, the school system serves about 4,400 students in kindergarten through 12th grade. Local food from the area is appearing more often in the school system through ways such as the Farm to School program. This program lasts during a week in November and brings nutritious fresh foods from local farms to local schools.

**HomeGrown Virginia:** HomeGrown Virginia is a food distribution company that represents local value-added products for sale to retailers and institutions. These products include foods processed in the Prince Edward Regional Food Enterprise Center.

**International Food Policy Research Institute:** IFPRI is one of 15 centers supported by the Consultative Group on International Agricultural Research (CGIAR), an alliance of 64 governments, private foundations, and international and regional organizations. Its mission is to provide policy solutions that reduce poverty and end hunger and malnutrition.

**Jefferson Area Board for Aging:** JABA serves the city of Charlottesville, and the counties of Albemarle, Fluvanna, Greene, Louisa and Nelson by promoting, establishing and preserving sustainable communities for healthy aging that benefit individuals and families of all ages.

**Local Food Hub:** The Local Food Hub operates a warehouse where they purchase and aggregate locally grown produce from more than 50 small family farms within 100 miles of Charlottesville. The food is then distributed to more than 100 locations in the region, including public schools, hospitals, institutions, restaurants and markets.

**Local Food Project at Airlie:** Established in 1998, by the Airlie Foundation in association with the Humane Society of the United States, the Local Food Project has provided organically grown vegetables, fruits, herbs, and flowers to the Airlie Center. The center is a leading conference destination in the US. The Local Food Project reaches out to conference guests with tours, visits to the garden, and workshops.

**Lulus Local Food:** The vision of Lulus Local Food is to design and construct community food systems throughout the country by providing an innovative tool that promotes the marketing, distribution & purchasing of product directly from local farmers.

**Mattawoman Creek Farms:** Located on the Eastern Shore of Virginia, Mattawoman Creek Farms is a family owned and operated USDA certified organic farm dedicated to growing a wide variety of fresh produce. The farm offers a CSA program for its subscribers from late May through September.

**Piedmont Environmental Council:** PEC works on safeguarding the landscapes, communities and heritage of the Piedmont by involving citizens in public policy and land conservation. The Piedmont Environmental Council launched Virginia's first Buy Fresh Buy Local campaign in 2006 with the goal of supporting local farmers, productive agricultural lands and rural economies by helping consumers easily find and purchase locally produced foods.

**Scale, Inc.:** The central purpose of Scale (Sequestering Carbon, Accelerating Local Economies) is to catalyze and accelerate economies, which increase community wealth and restore or sustain the ecosystem. The services are designed for community leaders, farmers, small businesses and non-profit practitioners working towards sustainable economic development. Scale offers assistance in three areas: Consulting with groups and

networks; workshops and public speaking; and writing and analysis. Virginia Farm to Table – Healthy Farms and Healthy Food for the Common Wealth and Common Good A Strategic Plan for Strengthening Virginia’s Food System and Economic Future

**Society of St. Andrew:** The Society of St. Andrew focuses on nationwide hunger by distributing fresh food to the hungry through its programs that use volunteers to glean farmers’ fields for produce left behind after harvest and gather unmarketable produce donated by members of the agricultural community. The produce is donated and delivered to food banks, pantries, soup kitchens, shelters and other service agencies nationwide.

**University of Virginia Food Collaborative:** At the University of Virginia, the Food Collaborative works to promote research, teaching, and community engagement in pursuit of more sustainable and place-based food systems. The Collaborative includes faculty, staff and students and is constituted both through its multidisciplinary membership and its engagement with community members and practitioners.

**University of Virginia Institute for Environmental Negotiation (IEN):** IEN was formed in 1980 by faculty from UVA’s School of Architecture’s Department of Urban and Environmental Planning to provide mediation and consensus building services concerning the natural and built environments. It is committed to building a sustainable future for Virginia’s communities and beyond by building capacity, building solutions, and building knowledge.

**Virginia Association for Biological Farming:** VABF provides Virginia’s agricultural community with information on ecologically sound agricultural practices, techniques and systems, and to support and encourage the development of healthy, sustainable farms and communities in Virginia.

**Virginia Beach Department of Agriculture:** This department provides leadership, coordination and education to enhance the economic vitality of the City’s agriculture industry and the preservation and enhancement of its physical environment, to assist citizens in strengthening their families and to provide citizens and visitors with cultural and recreational opportunities by preserving its agricultural and rural heritage.

**Virginia Cooperative Extension:** This is an educational outreach program of Virginia’s land-grant universities: Virginia Tech and Virginia State University, and a part of the National Institute for Food and Agriculture, an agency of the United States Department of Agriculture. Virginia Cooperative Extension is a product of cooperation among local, state, and federal governments in partnership with citizens, who, through local Extension Leadership Councils, help design, implement, and evaluate programs that stimulate positive personal and societal change, leading to more productive lives, families, farms, and forests as well as a better environment.

**Virginia Department of Agriculture and Consumer Services (VDACS):** VDACS promotes the economic growth and development of Virginia agriculture, provides consumer protection and encourages environmental stewardship.

**Virginia Department of Conservation and Recreation:** The Department of Conservation and Recreation works with Virginians to conserve, protect, and enhance their lands and improve the quality of the Chesapeake Bay and our rivers and streams, promotes the stewardship and enjoyment of natural, cultural and outdoor recreational resources, and ensures the safety of Virginia’s dams.

**Virginia Department of Education(VDOE):** VDOE provides leadership and assistance to school divisions in developing effective and comprehensive nutrition services that result in children making educated, healthful choices.

**Virginia Department of Health:** The Virginia Department of Health strives to promote and protect the health of all Virginians.

**Virginia Farm Bureau Federation:** Farm Bureau is a non-governmental, nonpartisan, voluntary organization committed to protecting Virginia’s farms and ensuring a safe, fresh and locally grown food supply. The organization works to support its producer members through legislative lobbying, leadership development programs, commodity associations, rural health programs, insurance products, agricultural supplies and marketing, and other services.

**Virginia Food System Council:** This statewide council is working to advance a nutrient-rich and safe food system for Virginians at all income levels, with an emphasis on access to local food, successful linkages between food producers and consumers, and a healthy viable future for Virginia’s farmers and farmland.

**Virginia State University (VSU):** VSU is one of Virginia’s land-grant universities and is guided by the University’s mission of teaching, research and public service. Its Department of Agriculture and Human Ecology prepares students for careers in agricultural business, animal science, plant, soil and environmental science, nutrition and dietetics, family and consumer science, textile and apparel merchandizing, hospitality management, agricultural education and government. In its Cooperative Extension Program, the school

transfers research-based information on agriculture, youth, environment and health to improve the life of its clientele.

**Virginia Tech Department of Agriculture and Extension Education:** This undergraduate and graduate degree at Virginia Tech prepares students for success in professions that include formal and non-formal teaching and learning in agriculture and leading agricultural organizations and communities. Virginia Farm to Table – Healthy Farms and Healthy Food for the Common Wealth and Common Good A Strategic Plan for Strengthening Virginia's Food System and Economic Future

**Virginia Tech Roanoke Center:** The center offers workshops, graduate courses, and public lectures. It also serves as a bridge to help students connect to the full scope of resources represented by Virginia Tech and strives to provide timely response and leadership to needs and opportunities within the Roanoke region.

**Washington and Lee University:** Located in Lexington, Virginia, Washington and Lee is composed of two undergraduate divisions, the College and the Williams School of Commerce, Economics, and Politics; and a graduate School of Law. The undergraduate institution offers 40 majors, 20 minors and more than 1,100 courses.

**Williamsburg Farmers' Market:** This market provides a space for growers and producers of Eastern Virginia to sell fresh seasonal food and farm products directly to the residents and visitors in the Greater Williamsburg area.

## Websites for Participating Organizations of the Virginia Food System Council

Appalachian Sustainable Development: <http://www.asdevelop.org/>

Catawba Sustainability Center: <http://www.vtrc.vt.edu/catawba/>

Center for Rural Virginia: <http://www.cfrv.org/>

Federation of Virginia Food Banks: <http://vafoodbanks.org/>

Harrisonburg City Public Schools: <http://harrisonburg.k12.va.us/>

HomeGrown Virginia: <http://www.homegrownvirginia.com>

International Food Policy Research Institute: <http://www.ifpri.org/>

Jefferson Area Board for Aging: <http://www.jabacares.org/>

Local Food Hub: <http://localfoodhub.org/>

Local Food Project at Airlie: <http://www.airlie.org/>

Lulus Local Food: <http://luluslocalfood.com/>

Mattawoman Creek Farms: <http://www.mattawomancreekfarms.com/>

Piedmont Environmental Council: <http://www.pecva.org/>

Scale, Inc.: <http://www.ruralscale.com/>

Society of St. Andrew: <http://www.endhunger.org/>

University of Virginia Food Collaborative: <http://www.virginia.edu/vpr/sustain/foodcollaborative/>

University of Virginia Institute for Environmental Negotiation: <http://www.virginia.edu/ien/>

Virginia Association for Biological Farming: <http://www.vabf.org/>

Virginia Beach Department of Agriculture: <http://www.vbgov.com/>

Virginia Cooperative Extension: <http://www.ext.vt.edu/>

Virginia Department of Agriculture and Consumer Services (VDACS): <http://www.vdacs.virginia.gov/>

Virginia Department of Conservation and Recreation: <http://www.dcr.virginia.gov/>

Virginia Department of Education: <http://www.doe.virginia.gov/>

Virginia Department of Health: <http://www.vdh.state.va.us/>

Virginia Farm Bureau Federation: <http://vafarmbureau.org/>

Virginia Food System Council: <http://www.virginiafoodsystemcouncil.org>

Virginia State University: <http://www.vsu.edu/>

Virginia Tech: <http://www.vt.edu/>

Virginia Tech Roanoke Center: <http://www.vtrc.vt.edu/>

Washington and Lee University: <http://www.wlu.edu/>

Williamsburg Farmers' Market: <http://www.williamsburgfarmersmarket.com/>

## Additional Resources



**Buy Fresh Buy Local:** The campaign helps consumers find local products while building relationships between growers, food artisans, farmers' markets retailers, restaurants, and institutions. The Piedmont Environmental Council launched the Virginia campaign in 2006.

**Center for Rural Culture:** The Center for Rural Culture is a not-for-profit organization whose mission is to educate, promote and inspire members of our community to sustain a culture that supports agriculture and the local economy, protects natural and historic resources, and maintains our rural character and traditions.

**Community Food Security Coalition (CFSC):** The CFSC is a North American coalition of diverse people and organizations working from the local to international levels to build community food security. The Coalition provides a variety of training and technical assistance programs for community food projects, supports the development of farm to school and farm to college initiatives, advocates for federal policies to support community food security initiatives, and provides networking and educational resources.

**Crossroads Resource Center:** A non-profit organization based in Minneapolis, Minnesota that works with communities and their allies to foster democracy and local self-determination. Ken Meter, President, of the Crossroads Resource Center specializes in devising new tools communities can use to create a more sustainable future. Ken conducted local food and farm studies in the Shenandoah Valley, Martinsville/Henry County Area, and the eastern Chesapeake Bay region of Virginia.

**Farm to College:** Farm-to-college programs connect colleges and universities with producers in their area to provide local farm products for meals and special events on campus. These programs may be small and unofficial, mainly involving special dinners or other events, or they may be large and well-established, with many local products incorporated into cafeteria meals every day.

**National Sustainable Agriculture Project:** The NCAT (The National Center for Appropriate Technology) Sustainable Agriculture Project provides information and technical assistance through their website, publications and other media to farmers, ranchers, Extension agents, educators, and others involved in sustainable agriculture in the United States. This project was formally known as ATTRA.

**Virginia Farm to School program:** This is an effort to increase the amount of fresh and nutritious Virginia Grown products offered in schools and to promote opportunities for schools and local farmers to work together.

## Websites for Additional Resources

Buy Fresh Buy Local campaign in Virginia: <http://www.buylocalvirginia.org/>

Center for Rural Culture: <http://www.centerforruralculture.org/>

Community Food Security Coalition: <http://www.foodsecurity.org/>

Crossroads Resource Center: <http://www.crcworks.org>

Farm to College: <http://www.farmtocollege.org/resources>

National Sustainable Agriculture Project: <https://attra.ncat.org/>

Virginia Farm to School program: <http://www.vdacs.virginia.gov/marketing/farm.shtml>

## Appendix F - Task Force Member Biographies

**John Vihstadt, Chair**, has served in a number of community and Arlington Public Schools leadership positions dating back to the 1980s. John is a former member of the Arlington County Planning Commission and the Housing Commission, and served as President of the Yorktown High School PTA and as Secretary and Vice Chair of the Arlington County Council of PTA's. John is a delegate from the Tara Leeway Heights Civic Association to the Arlington Civic Federation.

**Joan Horwitt**, Co-Chair, is a former Arlington Public Schools Spanish teacher and Washington Post food writer. In the spring of 2010, Joan launched the innovative *LAWNS 2 LETTUCE 4 LUNCH*, a school and neighborhood collaboration to promote healthy eating and teach children and adults to grow food and build community. She is also the founder and Chair of the Reevesland Learning Center that was inspired by the legacy of the historic Reeves property, the site of Arlington's last dairy farm and Nelson Reeves' iconic vegetable garden. The Reevesland Learning Center and Learning Garden are devoted to growing food, knowledge and community.

**Darnell Carpenter** represents the Arlington Civic Federation. Darnell is CEO of Synergy Group, LLC. He is an Arlington native and former president of the Civic Federation. He has also served on the board of directors for the Arlington County NAACP, and as a commissioner for the Arlington County Housing Commission.

**Rosemary Ciotti** has been a Planning Commissioner for Arlington County since 2006, bringing the perspectives of a nurse practitioner and a wheelchair user to the planning process. She is President and CEO of Accessible Living, Incorporated of Arlington, Virginia. Rosemary is a frequent invited participant to conferences both locally and internationally. Rosemary's passion for Wellness, Design, and the Built Environment evolved from her more than 20 years of experience as a nurse practitioner dedicated to the principals of promoting wellness. Rosemary is also Executive Director of "Global Organization of Feminists with Disabilities" (GOFWD) (501 c 3) that advocates for human rights for women with disabilities. Rosemary sits on the Board of Directors of the Warren G. Stambaugh Foundation of Virginia and the "National Organization of Nurses with Disabilities" (NOND). Rosemary has recently discovered hand-cycling and is now an avid fan of local bike trails.

**Linc Cummings** is a long-time Arlington resident, brought up in part on a farm. Forty years later he sat on the Arlington Planning Commission for ten years, Economic Development Commission for seven years, chaired the Extension Leadership Council, retired from IBM, and now sits on the Commission of Aging, manages a national consulting firm, chaired the Committee of 100, and is in Leadership Arlington. His wife, a retired attorney, was president of Master Gardeners of Northern Virginia and grows all their vegetables in a community garden.

**Cathleen Drew** has a Bachelors Degree in Environmental Biology and a Masters Degree in Museum Education. She is an employee of the Federal Government and has held positions as a Marine Biologist for the National Oceanic and Atmospheric Administration; a Research Scientist for the Smithsonian's National Museum of Natural History; an Environmental Education Specialist for the Smithsonian Environmental Research Center, an Interpretive Park Ranger and Permits Specialist for the National Park Service; and is currently the Director of Education for the Drug Enforcement Administration Museum in Pentagon City. She is also an active member of the Cherrydale Volunteer Fire Department where she worked as a Firefighter and EMT, and is currently the secretary of the Department. She is a fourth generation Arlingtonian who lives with her husband and three children in South Arlington.

**David Garcia** represents Arlingtonians for a Clean Environment, and is a former Board member. He is a Roving Naturalist for the Northern Virginia Regional Park Authority. The mission of the NVRPA Roving Naturalist Program is to connect the citizens of northern Virginia with the natural world in our Northern Virginia Regional Parks. He has lived in many countries, with many cultures and speaks Spanish, English, and Jamaican Patois. His interests include permaculture, nature conservation, and water sports.

**Darryl Hobbs** is an at large member of the Task Force and lives with his family in the Williamsburg Civic Association. Darryl is a lifelong Arlington resident who graduated from Wakefield High School. He attended both James Madison University and the University of Virginia. He serves as Assistant General Counsel for the Microsoft Corporation.

**Dennis Jaffe** is Executive Director of BRAVO, a nonprofit organization that empowers tenants in Arlington County. In 2012, BRAVO launched *We Grow Arlington*. The initiative aims to increase the number of residential rental properties offering community gardens. He has a plot at the community garden at Vornado's River House Apartments. A resident of the area since 1999, he has long dedicated himself to strengthening participatory democracy. He has led successful campaigns to make local transit more responsive to the region's needs. In his home state of New Jersey, he served as Executive Director of the state's chapter of Common Cause, and also as an elected trustee on his hometown board of education for two terms.

**Puwen Lee** is the head of the Volunteer Department at the Arlington Food Assistance Center (AFAC) and coordinator of AFAC's fresh produce program "Plot Against Hunger." Plot Against Hunger seeks fresh produce donations for AFAC's clients from local gardeners, farmers' markets and gleaning organizations. It also distributes free seeds and seedlings to clients and local gardeners and farmers. Over 30 local organizations (schools, faith-based groups, community gardens) and several backyard gardeners grow and donate vegetables to AFAC. Prior to working at AFAC, Puwen worked at The Asia Society; the Freer Gallery & Sackler Museum of Art; Commercial Press of Hong Kong and George Washington University. She is a lifelong gardener.

**Amy Maclosky** is the Director of Food and Nutrition Services for Arlington Public Schools. The Office of Food and Nutrition Services provides a variety of nutritious choices for breakfast and lunch every day. Menus are planned in accordance with the Dietary Guidelines for Americans. The school lunch program served 277,206 breakfasts and 1,085,669 lunches last year.

**Conor Marshall** was appointed to the Task Force as the representative from the Arlington Park and Recreation Commission. He first became involved in civic and community affairs in Arlington through serving on the Ballston Pond Stakeholders group, as well as the Vice-President of the Ballston-Virginia Square Civic Association. Hailing from Washington State, Conor has been an Arlington resident for nearly four years, now residing in the Fort Myer Heights neighborhood.

**Sarah Meservey** is on Arlington's Environment and Energy Conservation Commission (E2C2), serves on the board of Friends of Arlington Parks, and is on the Natural Resources Joint Advisory Group (NRJAG). She volunteers with several community organizations and is faculty co-sponsor of a high school environmental club. She is interested in many aspects of sustainability, and holds a certificate in climate change policy.

**Audrey Morris** worked for the State of Michigan, in the private sector and for public schools with duties as a CPA and in adult education, legislative research, and procedures development. She is also active with the First Presbyterian Church of Arlington. She is a Michigan farm girl raised on fresh garden vegetables and pursues interests in environmental sustainability and wellness.

**Gay William Mount** represents the Arlington Interfaith Council. He is a resident of Arlington since 1974; and the Dominion Hills neighborhood since 1983. He retired from the US Department of State after 30 years; most recently as Director of Planning in the Office of Foreign Buildings. His interest is to continue and improve the quality of living for all residents of Arlington.

**Michael Nardolilli** represents the Northern Virginia Regional Park Authority. He is the President and executive director of The Canal Trust, an official non-profit partner of the C&O Canal National Historical Park. Mike is a Member of the Board of Directors of the Northern Virginia Regional Park Authority and President of the Arlington Outdoor Lab (a 225-acre nature educational facility in Broad Run, Virginia). In the past, Mr. Nardolilli has served as President of the Northern Virginia Conservation Trust, Chairman of the East Falls Church Planning Task Force, Chairman of the Arlington County Transportation Commission, and President of the Arlington East Falls Church Civic Association. In 2011, Mr. Nardolilli was selected as a "Green City Leader" by Washington Life Magazine and was named a WETA-TV "Hometown Hero" in 2007.

**Joël Thévoz**, CEO of Main Event Caterers, is Swiss-born and has lived extensively in Latin America before settling in the Mid-Atlantic. Well traveled and adventurous, Joel followed his culinary passions which led him to the Catering Industry for its unending creative possibilities, creating Main Event in 1995. At the helm of Main

Event, especially its kitchens and brigade of chefs, Joel has focused on providing gourmet catered food and stellar service, establishing the company as a premier catering and event company. Joel is an innovator in sustainability and eco-conscious business practices. Currently he is pushing Urban Agriculture boundaries by testing an indoor vertical aquaponic farm and rooftop apiary. A three-time winner of the EcoLeadership Award, Joel Thevoz provides community leadership by sharing his green practices as a guest speaker to business and environmental organizations.

**Mary Van Dyke** represents the Extension Leadership Council of the Arlington Office of Virginia Cooperative Extension. She was born in Greece and lived in the UK and Minnesota before arriving in Arlington. Mary's background is in architectural practice specializing in public buildings with a PhD in community design and construction. Mary volunteers with Cooperative Extension and the Extension Leadership Council to bring research-based programs in urban agriculture, natural resources, finance, food, nutrition, and youth development to Arlington County.

## Appendix G - Glossary of Terms

**Aggregator:** A commercial or other entity that receives produce, dairy, meats, and valued-added products from producers and wholesalers with the intent of redistributing to grocers, schools, institutions, and others needing a consistent source of food items.

**Animal Husbandry:** The agricultural practice of breeding and raising livestock.

**Aquaponics:** A sustainable food production system combining aquaculture (raising aquatic animals such as fish, crayfish, prawns or snails in tanks) with hydroponics (cultivating plants in water). The effluents from aquaculture accumulate in the tank water, and this water is then used to nurture the plants which filter out the vital nutrients before the water is recirculated to the tanks.

**Buyers and Renters Arlington Voice (BRAVO):** An organization in Arlington County representing tenants and renters.

**Berm:** A space, shelf, or raised barrier separating two areas. This term in an urban area often applies to the area located between a sidewalk and a road

**Cistern:** A large container used to collect rain water for later use on gardens and for household needs.

**Community-based, sustainable food system:** According to a University of Michigan study, this is a food system in which everyone in the community has financial and physical access to culturally appropriate, affordable, nutritious food that was grown and transported without degrading the natural environment, and in which the general population understands nutrition and the food system in general. Community-based food systems are socially embedded, economically invested, and integrated across food production, processing, distribution, consumption, and waste disposal. They can also enhance the economic, social environmental and nutritional health of a particular place (Arndt, et al., 2009; Garrett & Feenstra, 1999).

**Community garden:** A piece of land gardened collectively by a group of people, typically where each gardener is assigned a specific area for their own gardening activities under a common set of rules and governance for the common good. This method of providing growing space is suited to urban environments where residential space is limited. It provides a catalyst for neighborhood and community development, stimulates social interaction, encourages self-reliance, and beautifies neighborhoods, while producing nutritious food, reducing family food budgets, conserving resources and creating opportunities for recreation, exercise, therapy and education.

**Community kitchen:** A kitchen meeting public health standards for food preparation

**Community Supported Agriculture (CSA):** According to the USDA, a CSA consists of a community of individuals who pledge support to a farm operation so that the farmland becomes, either legally or spiritually, the community's farm, with the growers and consumers providing mutual support and sharing the risks and benefits of food production. Typically, members or 'share-holders' of the farm or garden buy a subscription in advance of the planting season to cover the anticipated costs of the farm operation and farmer's salary. In return, they receive shares in the farm's bounty throughout the growing season, as well as satisfaction gained from reconnecting to the land and participating directly in food production. Members also share in the risks of farming, including poor harvests due to unfavorable weather or pests. Supporting a CSA provides the shabvreholder with fresh food grown closer to home and a chance to interact with their grower directly (DeMuth, 1993).

**Composting:** Organic material that can be used as a soil amendment or as a medium to grow plants. Mature compost is a stable material with a content called humus that is dark brown or black and has a soil-like, earthy smell. It is created by: combining organic wastes (e.g., yard trimmings, food wastes, manures) in proper ratios into piles, rows, or vessels; adding bulking agents (e.g., wood chips) as necessary to accelerate the breakdown of organic materials; and allowing the finished material to fully stabilize and mature through a curing process.

**Cooperative Extension:** A national educational program designed to help people use research-based knowledge to improve their lives. The service is provided by the state's designated land-grant universities. The Virginia Cooperative Extension, serving Arlington County and Alexandria, is a partnership between Virginia Tech and Virginia State University. In most states the educational offerings are in the areas of agriculture and food, home and family, the environment, community economic development, and youth and 4-H.

**Equity:** A local food system emphasizes a more equitable distribution of food resources (such as farmers markets, community gardens, etc.) to ensure an adequate supply of nutritious, affordable and culturally appropriate food and it supports self-sufficiency among families and communities. (Minneapolis)

**Farmers market:** A market that operates multiple times per year and is organized for the purposes of facilitating personal connections that create mutual benefits for local farmers, shoppers and communities. It is characterized by farms selling directly to the public products that the farms have produced. (What Our Region Grows)

**Food aggregator/food hub:** A business or organization that actively manages the aggregation, distribution and marketing of source-identified food products, primarily from local and regional producers, for the purpose of strengthening production capacity and access to wholesale, retail and institutional markets. (What Our Region Grows)

**Food hub:** See "food aggregator"

**Food miles:** According to the National Center for Appropriate Technology (NCAT) Sustainable Agriculture Project, food miles are the distance food travels from the location where it is grown to the location where it is consumed, or in other words, the distance food travels from farm to plate. Reducing this distance reduces transportation costs, saves energy, reduces pollution and provides the consumer with fresher food (Hill, 2008).

**Food security:** The USDA (2009) defines food security as access by all members of a household at all times to enough food for an active, healthy life. Food security includes at a minimum: The ready availability of nutritionally adequate and safe foods. Assured ability to acquire acceptable foods in socially acceptable ways (that is, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies).

**Foodshed:** This term signifies the geographic area from which a population or community obtains its food supply. Analysis of a foodshed observes the sources of food for a population, the flow of food from its origin to its destination, where it is consumed. This examination can evaluate how these aspects impact the environment and the food security of populations (Peters et al., 2009).

**Green roof:** A rooftop system providing appropriate growing medium and plants intended to reduce energy loss from the building and may be used to raise food plants.

**Hydroponics:** Cultivating plants in water rather than soil, often in a greenhouse type environment.

**Intensive growing method:** An agricultural system in which high levels of inputs, such as nutrients and labor, are employed to yield higher production rates on the same amount of land. Methods may be organic or non-organic.

**LEED™:** The US Green Building Council's Leadership in Energy and Environmental Design Green Building Rating System, which provides a system to measure the energy and environmental performance of buildings. This system has been adopted by Arlington County. The rating system allots points within seven specific categories for environmentally beneficial building materials and design, in categories such as site location, water efficiency, energy, and the atmosphere, materials and resources, and indoor environmental quality.

**Local food:** Food produced and consumed within a reasonable distance of each other. There are no set limitations as to the boundaries of the food being grown, caught, or raised, however, the goal is to optimize agricultural profits kept in the immediate area. Buying and producing local food supports local food systems. According to the definition adopted under the 2008 Food, Conservation, and Energy Act (2008 Farm Bill) for



local food, the total distance that a product can be transported and still be considered a locally or regionally produced agricultural food product is less than 400 miles from its origin, or within the State in which it is produced. Other organizations and institutions commonly define local food as having been grown 100 – 150 miles from the consumer.

**Local food systems:** When consumers actively buy local food, they are helping to maintain the surrounding food system, in turn, increasing growth in the local economy. Sourcing and purchasing these products reduces the number of “food miles,” supports the community’s farmers, and promotes fresh foods. For this system to be sustainable, the production and processing system used to generate local food should be less fossil fuel-intensive, destructive to the nearby environment, or fail to support the producers.

**Locavore:** A person who eats foods grown, raised or produced locally whenever possible; usually within 100 miles from home. (What Our Region Grows)

**Master Gardener:** An individual who has been trained through a Cooperative Extension program on gardening theory and practice and volunteers time to support Extension agriculture and natural resources agents in their information and outreach efforts.

**Master Food Volunteer:** An individual who has been trained through a Cooperative Extension program on food preparation, nutrition, food safety, and physical activity and volunteers time to support Extension family and consumer sciences agents in education and outreach efforts.

**Organic Farm:** A farm where vegetable, fruit and/or animals are produced using natural sources of nutrients (such as compost, crop residues and manures), and natural methods of crop and weed control are employed, instead of synthetic/inorganic agrochemicals. (What our Region Grows)

**Resource management plan:** In terms of water resources, a resource management plan promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

**Rooftop farm or garden:** The use of rooftop space to grow food.

**Supplemental Nutritional Assistance Program (SNAP):** The federal program formerly known as Food Stamps which is administered by the United States Department of Agriculture (USDA) to provide financial assistance to those lacking funds for food.

**Sustainable agriculture:** In the 1990 Farm Bill, sustainable agriculture is described as an integrated system of plant and animal practices having a site-specific application that will, over the long term:

- satisfy human food and fiber needs;
- enhance environmental quality and the natural resource base upon which the agricultural economy depends;
- make the most efficient use of non-renewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls;
- sustain the economic viability of farm operations; and
- enhance the quality of life for farmers and society as a whole.

**Tax Increment Financing (TIF):** A method to use future gains in tax collections to subsidize current improvements. These improvements are projected to create the conditions for those gains by increasing the value of surrounding real estate, sales tax revenue, and jobs growth.

**Tool library:** A location which accepts donations of garden tools and supplies, and lends them to gardeners for a limited time much as a traditional library lends books.

**Urban agriculture:** Growing or raising food in and around cities, often in repurposed spaces such as vacant lots, schoolyards, rooftops, balconies, apartment windows, residential yards and park areas.

**Urban farm:** A city space devoted to food production, often an acre or more in size, which is operated as a single entity. Typically a variety of food crops are grown, and perennial plants such as raspberries and fruit trees may be included. The space may also serve as an education center and demonstration site, providing training in food production and healthy eating.

**Usufruct:** A zoning provision allowing for public harvest of food grown in public areas such as in parks or from a tree that that overhangs a sidewalk or other public land

**Vermiculture:** A composting method using earthworms to digest organic material, producing worm castings

**Vertical farming:** Cultivating plant or animal life within a skyscraper greenhouse or on vertically inclined surfaces using techniques similar to glass houses, where natural sunlight can be augmented with artificial lighting.

**Yard sharing:** An arrangement between landholders and others wishing to garden, whereby a gardener is allowed to use a specified space in a yard (or grounds if a commercial space). The specifics may be based on a written agreement, and the gardener may intend the to use the produce for themselves, to share with landholder, or for resale.

*"I know of no pursuit in which more real and important services can be rendered to any country than by improving its agriculture."*

*George Washington, First President of the United States.*

*"All across this great country of ours, something truly special is taking root.....the story of how, together, in gardens large and small, we have begun to grow a healthier nation."*

*from American Grown: The Story of the White House Kitchen Garden and Gardens Across America  
by Michelle Obama. Copyright © 2012  
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