



Fairfax County Park Authority Needs Assessment

April 2016



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CHAPTER ONE - EXECUTIVE SUMMARY

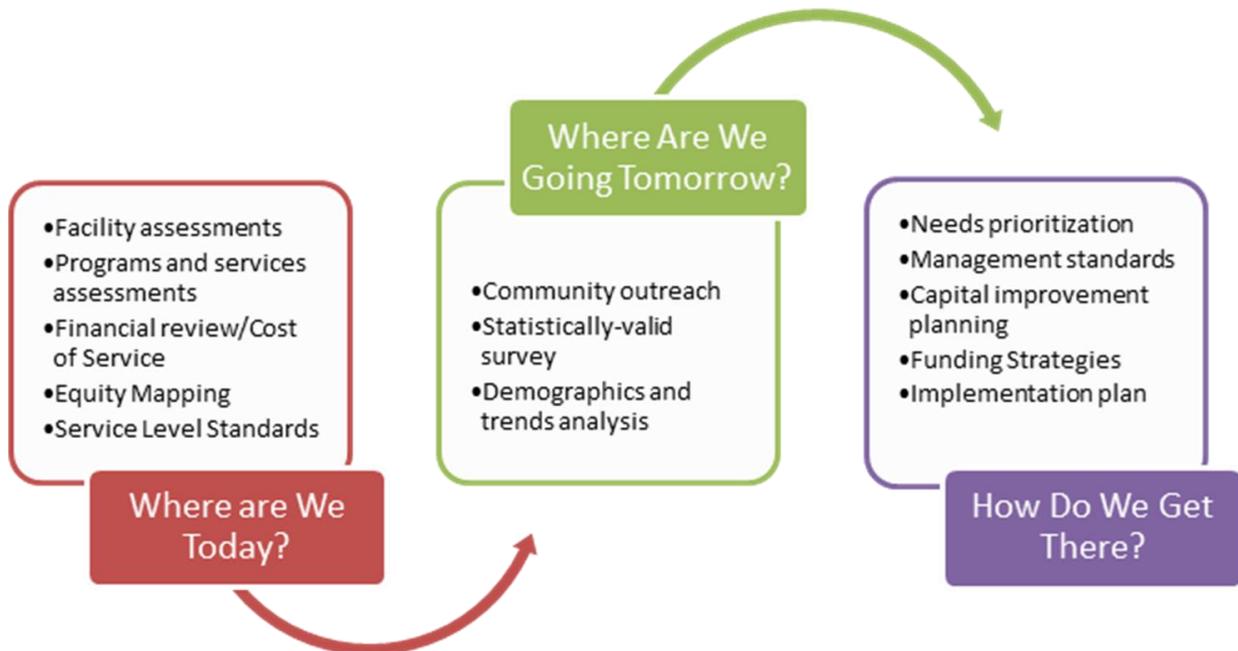
1.1 INTRODUCTION

Fairfax County loves its parks! Every day, parks make a difference in the lives of residents, visitors, and workers and build a stronger, healthier community. As a strong organization, FCPA is focused on creating new opportunities to engage the community in positive activities. FCPA’s dedicated, knowledgeable and hardworking employees are inspired by park patrons and contribute their best efforts to improving our quality of life.

In an effort to ensure that Fairfax County’s recreational needs are aligned with park system offerings, that natural and cultural resources are preserved and that facilities, services and programs continue to be delivered effectively for the next ten years, FCPA has completed an extensive needs assessment evaluation. This assessment defines FCPA’s role in future land acquisition, facility renovation and new capital improvements. The Needs Assessment Final Report documents the research, analysis, and findings; identifies community needs; and recommends a ten year capital improvement plan with implementation strategies.

1.2 BUILDING THE PROCESS

Analysis of the survey and the other public input data, combined with the national expertise of the consultant, and consideration of peer communities, resulted in the determination of community need. To help create a more balanced park system with equitable access to public parks and recreation facilities, twenty-one countywide facility service level standards were reviewed for those facilities with the highest park and recreation need. Review of these standards for Fairfax County were based on extensive analysis of citizen demand and preferences compared with the existing public facility inventories, including FCPA facilities and those of other public providers. This analysis is coupled with population projections through 2025 to determine needs over the next ten years.





1.3 FAIRFAX COUNTY TODAY

To better understand the Fairfax County population and key characteristics such as age segments, income levels, race, and ethnicity, the study examined current and future demographics using the Environmental Systems Research Institute (ESRI) database. Future projections are based on historical patterns and there is the potential for unforeseen circumstances during or after the time of the use. The potential shifts may have a significant bearing on the validity of the final projections offered in this study.

- Population - Projecting forward, the growth rate is expected to rise at an annual rate of just over 0.8% for the next 15 years. Based on those assumptions, the County is expected to have approximately 1,251,607 residents in 2030.
- Age Segmentation - By 2030, it is projected that the active adult population (55+) will make up 33% of the population, making it the largest age segment in Fairfax County. This echoes a national trend of increased life expectancies and the movement of the baby boomer generation through the lifespan.
- Income - Fairfax County's per capita income and median household income levels are significantly higher than state and national averages.
- Ethnicity - Fairfax County is diverse, and the community is expected to continue diversifying. By 2030, projections estimate that nearly one out of every four residents in Fairfax County will be of Asian descent and just over one out of every five will be of Hispanic origin.

1.4 NATURAL RESOURCES ASSESSMENT

The Consulting Team utilized an iterative approach to determine the full cycle, multi-phase (i.e. assessment, installation, monitoring, and maintenance) resource management costs for select natural resource management activities. Overall, to perform the necessary maintenance activities in accordance with best practices across all 17,000 acres of natural area owned by FCPA, an additional \$2,350 per acre of annual funding would be needed.

1.5 CULTURAL RESOURCES ASSESSMENT

The Consulting Team utilized an iterative approach to determine the full cycle, multi-phase (i.e. assessment, installation, monitoring, and maintenance) resource management costs for select cultural resource management activities. Overall, to perform the necessary maintenance activities as detailed in the Needs Assessment, an additional \$500,000 of annual funding would be needed.

1.6 RECCENTER FACILITY ASSESSMENTS

RECenter Facility Assessments were conducted on eight of the nine facilities (Mount Vernon was excluded as a renewal study was already being conducted) as part of a System-Wide Needs Assessment. The purpose of the assessments is to evaluate the existing conditions and functionality of the building systems and determine the life expectancy of each of the main building elements for each RECenter. Specific areas of investigation are as follows:

- Site (S)
- Building Envelope (E)
- Interior Finishes (F)
- Mechanical (M)

- Electrical (EL)
- Plumbing (P)
- Fire Protection (FP)
- Aquatic (A)

The Assessment also provides estimates of the cost to repair, replace, or modify each element to meet the use requirements or the Expected Facility Life Cycle Standards set by FCPA as well as when the repairs should be expected within the life of the building.

A summary of the improvements recommended over the next ten and twenty years for each of the eight RECenters is as follows:

FACILITY ASSESSMENT COST SUMMARY			
Facility	10 Year Improvement Total	20 Year Improvement Total	% of Total Cost within 10 Years
Audrey Moore	\$6,137,500	\$11,215,000	54.7%
Cub Run	\$2,890,550	\$3,353,050	86.2%
George Washington	\$2,892,750	\$3,115,250	92.9%
Lee District	\$9,102,500	\$16,095,000	56.6%
Oak Marr	\$9,463,500	\$10,261,000	92.2%
Providence	\$7,090,000	\$7,572,500	93.6%
South Run	\$3,025,000	\$3,387,500	89.3%
Spring Hill	\$4,698,500	\$8,471,000	55.5%
TOTAL	\$45,300,300	\$63,470,300	71.4%

1.7 COMMUNITY INPUT

At its foundation, the needs assessment was based on an extensive qualitative public input process that included stakeholder interviews, focus groups, public forums, and culminated in a community survey conducted with a statistically valid, random sample of Fairfax County households (quantitative input).

1.7.1 QUALITATIVE COMMUNITY INPUT

Important themes that emerged from the analysis of the stakeholder interviews, focus groups and public forums included the following:

- **Diverse Programs** - People utilize and appreciate the variety of programs and activities that FCPA provides including but not limited to special events, fitness and exercise, youth out of school programs, swim lessons and natural/cultural historic programs.
- **High Utilization** - There are many recreational facilities and programs that people value and use frequently. People believe that FCPA’s facilities and programs add value to the quality of life in



their community. Still, public input indicates the need for both improvements to existing facilities, and for new facilities.

- Natural and Cultural Resource Programs Valued- People value FCPA’s conservation efforts and educational programs. A desire to expand existing successful programs, offer more programming related to historic/cultural resources, and the enhancement of natural resources programs was expressed.
- Reduced Resources Utilized Well- Generally, people - especially the decision-makers interviewed - believe that FCPA is working well with a reduction in resources. People would like to see more funding spent on maintenance. Fees were one area that people would like to see adjusted to reflect the value received. There were also several suggestions for how to address funding shortages.
- Value Staff, Prefer More Outreach - People generally spoke highly of FCPA staff as knowledgeable and proficient with outreach. However, among areas they would like to see improved, marketing and outreach stand out, especially in terms of the desire for an expanded use of technology.
- Value Planning Efforts, Greater Execution Desired - People believe that FCPA has the trust of the public, which is important as FCPA moves ahead with long-term plans. There were some concerns about the scope of planning that FCPA must take on, as well as the time frames for implementation of plans.

1.7.2 QUANTITATIVE COMMUNITY INPUT

Important themes that emerged from the analysis of the statistically-valid survey included the following:

VISITATION OF PARKS AND RECREATION FACILITIES

- Park Usage: 87% of respondents indicated they had visited a park operated by the Fairfax County Park Authority over the past 12 months and 13% indicated they had not.
- Quality of Parks and Recreation Facilities: 62% of respondents who have visited FCPA parks rated the physical condition of all parks, trails and recreation facilities as “good” on a scale of poor to excellent.

PARK AUTHORITY IMPROVEMENTS

- Agreement with Suggested Improvements: Based on the respondent households’ level of agreement, ninety-four percent (94%) indicated they either “strongly agree” or “agree” it is important to preserve open space and environment.
- Most Important to Households: Based on the percentage of respondents’ top three most important statements, 57% indicated that preserve open space and environment is most important to their household.
- Most Important to Future of Fairfax County: Based on the percentage of respondents’ top three most important statements, 60% indicated that preserve open space and environment is most important to the future of Fairfax County.

PARKS AND FACILITIES

- Highest Need for Park or Facility Type: Based on the percentage of respondents, 84% or 329,750 households indicated that they have a need for paved walking and biking trails.

- How Well Needs are Being Met by Parks and Facilities: Eighty-eight percent (88%) of respondents indicated large regional parks either “fully met” or “mostly met” their needs.

OUTDOOR AND INDOOR FACILITIES

- Outdoor and Indoor Facilities Households Have a Need For: Based on the percentage of respondents, 67% or 262,390 households indicated that they have a need for swimming pools and 63% or 248,292 households have a need for exercise and fitness facilities.
- How Well Needs are Being Met by Outdoor and Indoor Facilities: Seventy-seven percent (77%) of respondents indicated baseball fields (60ft bases) either “fully met” or “mostly met” their needs.
- Most Important Indoor and Outdoor Facilities: Based on the percentage of respondents’ top four most important facilities, 52% indicated that swimming pools are most important to their household.

PROGRAMS AND ACTIVITIES

- Programs and Activities Households Have a Need For: Based on the percentage of respondents, 77% or 301,553 households indicated that they have a need for biking, hiking walking.
- How Well Needs are Being Met by Programs and Activities: Eighty-one percent (81%) of respondents indicated biking, hiking, walking either “fully met” or “mostly met” their needs.
- Usage of Programs and Activities: Eighty-seven percent (87%) of respondents have indicated they have used biking, hiking, walking during the past 12 months.

SUPPORT AND FUNDING FOR PARKS AND RECREATION SYSTEM

- Based on the percentage of respondent households who indicated their level of support as either “very supportive” or “somewhat supportive,” 87% indicated that they support the county to expand/renovate walking biking trails and connect existing trails.
- Willingness to Fund with County Tax Dollars: Based on the sum of respondents top four “most willing actions”, 45% indicated they would be willing to expand/renovate walking/biking trails and connect existing trails with county tax dollars.
- Allocation of Funds: When residents were given the opportunity to allocate \$100 to various categories, \$30 were allocated to repair/maintain existing parks and infrastructure. Other allocations of funds were: upgrade/expand existing park facilities (\$22), repair/maintain existing parks and infrastructure (\$18), conserve and maintain natural and historic resources (\$18), acquire new parkland and open space (\$17), and develop new recreation and parks facilities (\$12).

RATING AND IMPORTANCE OF PARK SYSTEM

- Satisfaction with Park System: Based on the percentage of respondents, 57% rated their level of satisfaction with the park system as an 8 or higher on a 10 point scale.
- Importance of High Quality Parks to Quality of Life: 62% indicated high quality parks, trails, recreation facilities and services are extremely important to the quality of life in Fairfax County.

1.8 NEEDS ANALYSIS

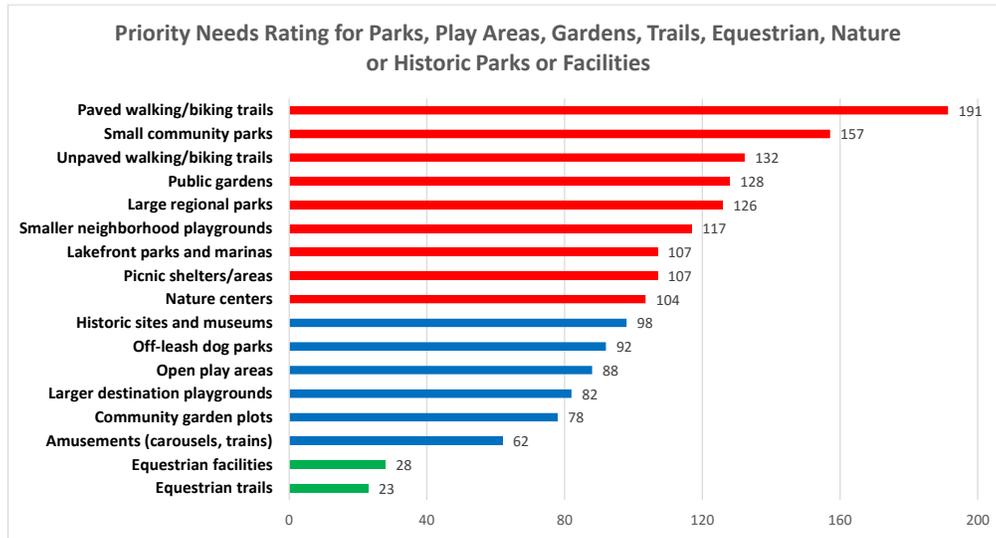
For Fairfax County, it is critical to understand the needs of the community in order to provide offerings that are focused on a mix of traditional and emerging activities, so as to serve the market while maintaining affordability. This section of the report summarizes the priorities for the Fairfax County Park



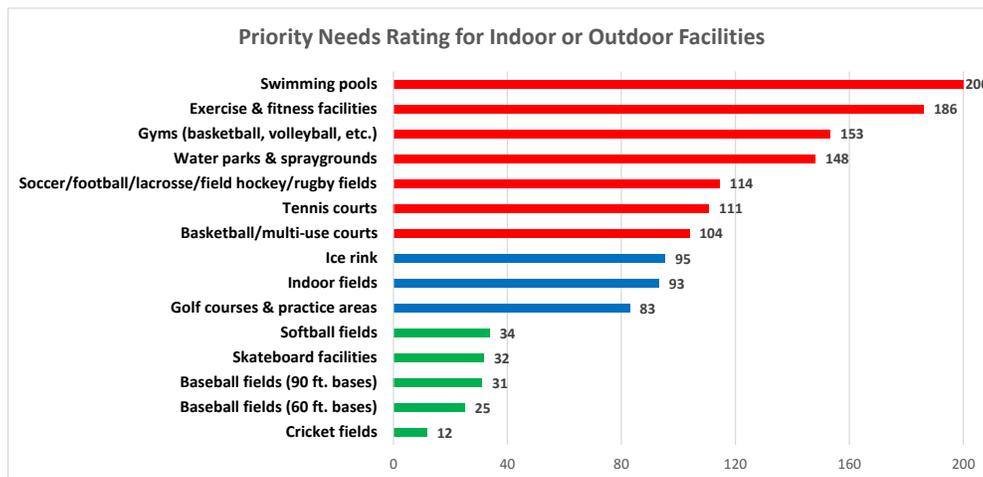
Authority from which specific recommendations and strategies will be developed. Needs are identified by the consulting team based on industry best practices, public and stakeholder input, and statistically valid survey results.

The following sections summarize the priority needs rating of Fairfax County residents (highest priority are shown in red; medium priority are shown in blue; lowest priority needs are shown in green),

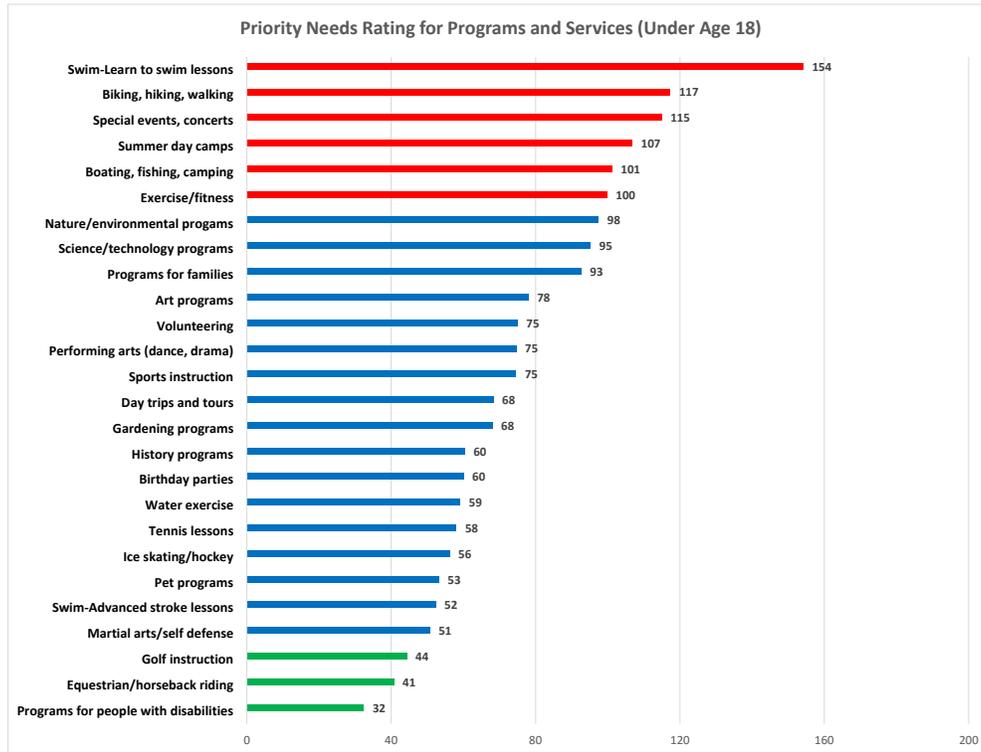
1.8.1 PARK, PLAY AREAS, GARDENS, TRAILS, EQUESTRIAN, NATURE OR HISTORIC PARKS OR FACILITIES NEEDS ANALYSIS



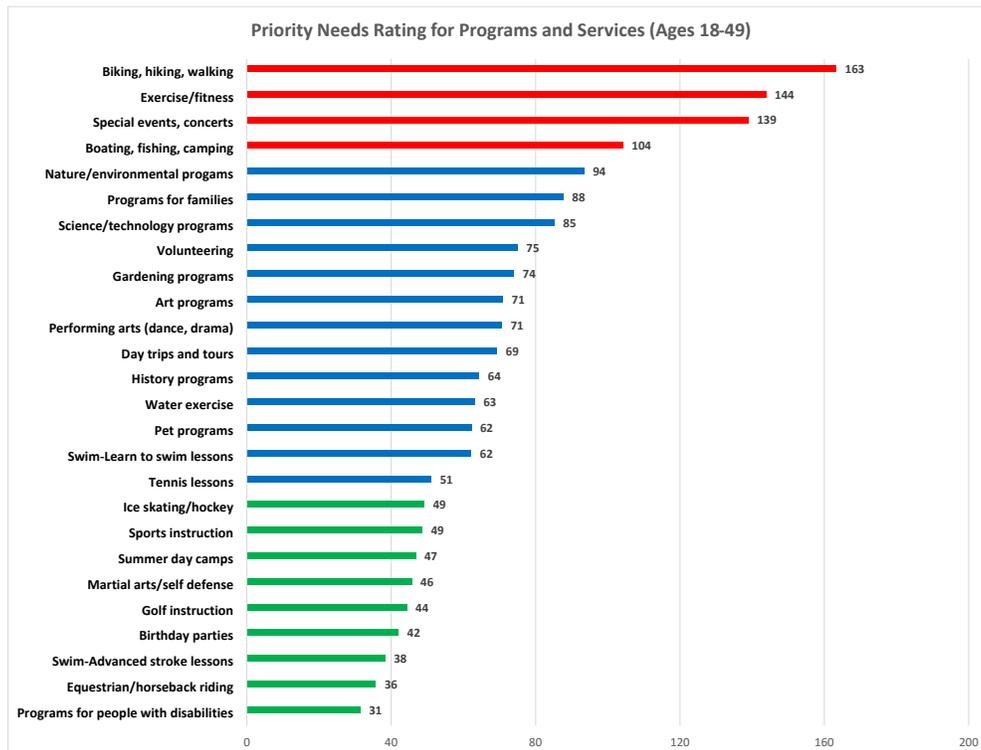
1.8.2 INDOOR OR OUTDOOR FACILITIES NEEDS ANALYSIS



1.8.3 PROGRAMS AND SERVICES FOR AGES UNDER 18

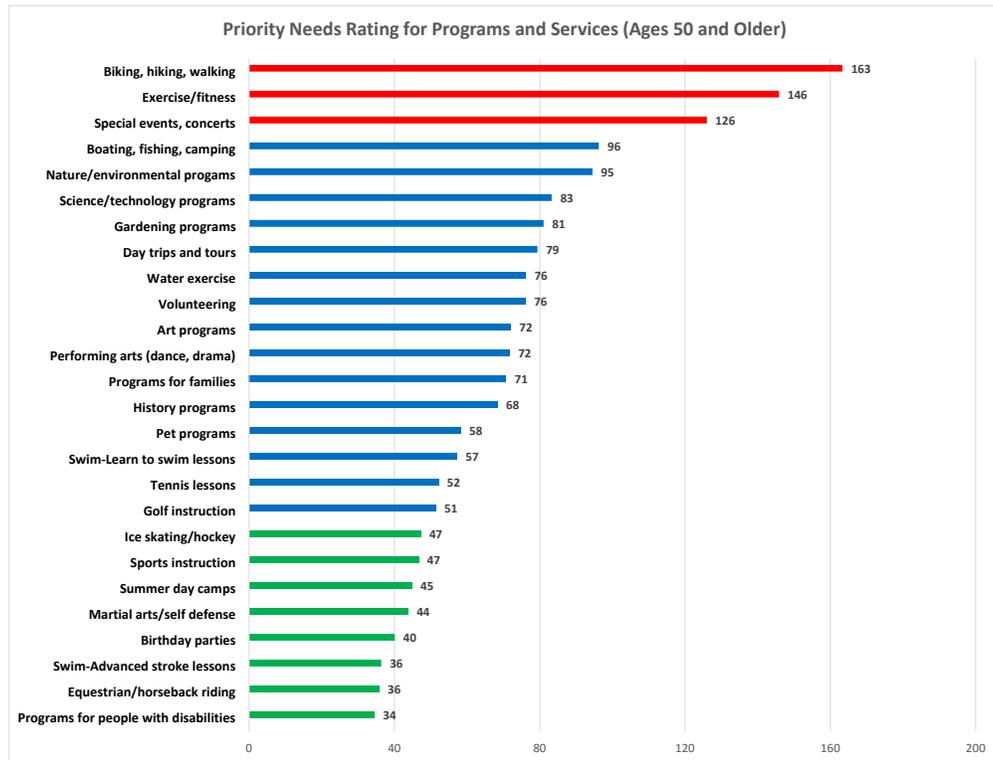


1.8.4 PROGRAMS AND SERVICES AGES 18-49





1.8.5 PROGRAMS AND SERVICES AGES 50 AND OLDER



1.9 SERVICE LEVEL STANDARDS – WHERE ARE WE GOING TOMORROW?

The service level standards adopted in 2004 have served Fairfax County well and provide a basis for measuring park system performance. Coupled with the park system assessments, community input and analysis conducted, it is recommended that the County retain the Service Level Standards adopted in 2004 for its core facilities as reflected in the chart below.

Park System Element	2016 Recommended Service Levels		
Local Parks	5.00	acres per	1,000
Playgrounds	1.00	site per	2,800
Outdoor Sport Courts (basketball/tennis)	1.00	court per	2,100
Skate Parks, Neighborhood	1.00	site per	50,000
Dog Parks, Neighborhood	1.00	site per	86,000
District & Countywide Parks	13.00	acres per	1,000
Indoor Gyms	0.25	SF per	person
Diamond, Baseball 60 ft Fields (Youth)	1.00	site per	7,200
Diamond, Baseball 90 ft Fields (Youth, Adult)	1.00	field per	24,000
Diamond, Softball 60 ft Fields (Youth)	1.00	field per	8,800
Diamond, Softball 65 ft Fields (Adult)	1.00	field per	22,000
Rectangle Fields (All)	1.00	field per	2,700

Other asset types include only a few facilities within the asset type and serve a large part of the County or the entire County. These facility types include Reservable picnic shelters, RECenters, golf, equestrian facilities, etc. Decision making regarding these asset types is driven more by programmatic, feasibility and other factors rather than on a population/service ratio basis and population service level standards are less meaningful. Contribution strategies for all facility types are provided to guide decision-making and service delivery over the next decade.



1.10 FCPA CONTRIBUTION STRATEGIES – HOW DO WE GET THERE?

As FCPA is one of many countywide providers of park and recreation facilities and services. Therefore, its responsibility to address citizen needs as expressed in the countywide service levels standards, is shared. Service delivery strategies for each park system element is reflected through the adoption of FCPA contribution strategies over the next ten years. Contribution strategies represent actions for FCPA to provide its share of needed facilities and parkland through 2025. The following chart provides reflects key strategy recommendation for key park elements to be adopted by FCPA to meet community needs in the next decade.

Park System Element	FCPA Contribution Strategies
Local Parks	(1) Reinvest; (2) Add
Playgrounds	(1) Reinvest; (2) Maintain
Outdoor Sport Courts (basketball/tennis)	(1) Upgrade; (2) Construct; (3) Adapt
Skate Parks, Neighborhood	(1) Build; (2) Maintain; (3) Study
Dog Parks, Neighborhood	(1) Build; (2) Implement
District & Countywide Parks	(1) Maintain; (2) Reinvest/Expand; (3) Manage
Indoor Gyms	(1) Maintain; (2) Study
Diamond, Baseball 60 ft Fields (Youth)	(1) Reinvest; (2) Partner
Diamond, Baseball 90 ft Fields (Youth, Adult)	(1) Build Complex; (2) Partner
Diamond, Softball 60 ft Fields (Youth)	(1) Reinvest; (2) Partner
Diamond, Softball 65 ft Fields (Adult)	(1) Supplement; (2) Improve; (3) Partner
Rectangle Fields (All)	(1) Reinvest; (2) Supplement; (3) Partner
Skate Parks, Countywide	(1) Build; (2) Maintain; (3) Study
Golf	(1) Reinvest; (2) Monitor
Trails	(1) Reinvest; (2) Connect; (3) Partner
Equestrian Facilities	(1) Maintain; (2) Partner
Waterfront Parks	(1) Maintain; (2) Reinvest
Outdoor Family Aquatics	(1) Maintain; (2) Monitor
Resource Based Parks	(1) Maintain; (2) Monitor
Horticulture Parks	(1) Improve; (2) Implement; (3) Partner
Nature Centers	(1) Upgrade/reinvest; (2) Partner; (3) Utilize alternative spaces

1.11 CAPITAL IMPROVEMENT FRAMEWORK

A valuable aspect of this Needs Assessment process is that the resulting community facility needs form the basis for a 10-year phased Capital Improvement Framework (CIF). The CIF provides the overall long-range framework with recommended allocation of capital resources by facility type to meet the projected citizen’s park and recreation needs. The plan is a guide for decision-makers for use in creating

future bond programs and allocating other capital funding sources. Priority criteria were developed and used in scheduling projects within the CIF timeframe and tied directly to the demonstrated citizen needs.

The total projected need for the ten year period reflected in the CIF is \$941,042,100. This total amount is broken out into three strategic areas of improvement: Critical (repairing the existing parks system), Sustainable (upgrading the existing parks system) and Visionary (new, significant upgrades). The chart below shows the distribution of the total amount in these three areas in five year increments:

Asset	Time Frame	Critical	Sustainable	Visionary	TOTAL
Athletic Fields	1-5 Years	\$19,775,000	\$0	\$18,964,000	\$38,739,000
District & Countywide Parks	1-5 Years	\$0	\$3,225,000	\$3,226,000	\$6,451,000
Golf	1-5 Years	\$591,000	\$8,731,000	\$0	\$9,322,000
Grant	1-5 Years	\$0	\$430,000	\$538,000	\$968,000
Historic Sites	1-5 Years	\$8,772,000	\$13,975,000	\$0	\$22,747,000
Horticulture Parks	1-5 Years	\$366,000	\$0	\$0	\$366,000
Infrastructure	1-5 Years	\$10,792,000	\$24,191,000	\$5,375,000	\$40,358,000
Lakefront Parks	1-5 Years	\$0	\$5,375,000	\$1,075,000	\$6,450,000
Local Parks	1-5 Years	\$0	\$5,375,000	\$0	\$5,375,000
Multi-Use Courts	1-5 Years	\$9,186,000	\$0	\$0	\$9,186,000
Nature Centers	1-5 Years	\$1,269,000	\$5,762,000	\$0	\$7,031,000
Outdoor Family Aquatics	1-5 Years	\$425,000	\$0	\$0	\$425,000
Picnic Shelters	1-5 Years	\$5,579,000	\$0	\$2,924,000	\$8,503,000
Playgrounds	1-5 Years	\$25,327,000	\$0	\$538,000	\$25,865,000
Recreation Centers	1-5 Years	\$61,256,000	\$36,139,000	\$0	\$97,395,000
Resource Based Parks	1-5 Years	\$5,483,000	\$0	\$0	\$5,483,000
Skate Parks	1-5 Years	\$738,000	\$0	\$1,613,000	\$2,351,000
Trails	1-5 Years	\$6,367,000	\$4,742,000	\$2,945,000	\$14,054,000
SUB-TOTAL	1-5 Years	\$155,926,000	\$107,945,000	\$37,198,000	\$301,069,000
Athletic Fields	6-10 Years	\$0	\$14,883,000	\$21,747,000	\$36,630,000
District & Countywide Parks	6-10 Years	\$0	\$13,613,000	\$267,688,000	\$281,301,000
Golf	6-10 Years	\$0	\$6,897,000	\$774,000	\$7,671,000
Grant	6-10 Years	\$0	\$484,000	\$605,000	\$1,089,000
Historic Sites	6-10 Years	\$0	\$13,794,000	\$31,460,000	\$45,254,000
Horticulture Parks	6-10 Years	\$0	\$3,630,000	\$0	\$3,630,000
Infrastructure	6-10 Years	\$0	\$15,004,000	\$8,140,000	\$23,144,000
Lakefront Parks	6-10 Years	\$0	\$30,250,000	\$0	\$30,250,000
Local Parks	6-10 Years	\$0	\$8,470,000	\$15,231,000	\$23,701,000
Nature Centers	6-10 Years	\$0	\$605,000	\$0	\$605,000
Outdoor Family Aquatics	6-10 Years	\$0	\$0	\$3,630,000	\$3,630,000
Picnic Shelters	6-10 Years	\$0	\$0	\$987,000	\$987,000
Playgrounds	6-10 Years	\$0	\$12,316,000	\$605,000	\$12,921,000
Recreation Centers	6-10 Years	\$0	\$46,791,000	\$76,133,000	\$122,924,000
Resource Based Parks	6-10 Years	\$0	\$0	\$26,751,000	\$26,751,000
Skate Parks	6-10 Years	\$0	\$0	\$1,815,000	\$1,815,000
Trails	6-10 Years	\$0	\$5,613,000	\$10,176,000	\$15,789,000
SUB-TOTAL	6-10 Years	\$0	\$172,350,000	\$465,742,000	\$638,092,000
GRAND TOTAL		\$155,926,000	\$280,295,000	\$502,940,000	\$939,161,000

It is imperative that FCPA utilize the Capital Improvement Framework in future capital planning, budgeting, bond programming and decision making to fully implement the Needs Assessment over the next ten years.



1.12 ADDITIONAL KEY RECOMMENDATIONS TO IMPLEMENT NEEDS ASSESSMENT

1.12.1 CONDUCT RECENTER SYSTEM-WIDE FEASIBILITY STUDY

Utilizing the prioritized needs and RECenter assessments identified within this report as guides, the Consulting Team recommends that FCPA continue developing and implementing the renewal study that is currently underway. Outcomes of this study will result in the redevelopment of FCPA's RECenters that effectively and efficiently meet the indoor recreation needs of Fairfax County residents.

1.12.2 CONDUCT PARK AMENITY RENEWAL STUDY

Using the prioritized needs identified within this report and the recently completed Eppley Institute Maintenance Management Plan as guides, the Consulting Team recommends that FCPA continue moving forward with the park amenity renewal study that staff initiated in 2014. Outcomes of this study will result in the redevelopment of FCPA's parks and amenities that effectively and efficiently meet the outdoor park and recreation needs of Fairfax County residents.

1.12.3 DEVELOP AND IMPLEMENT ASSET MANAGEMENT PROGRAM

The Consulting Team recommends that FCPA establish and facilitate an asset management program including asset management planning, investment and budgeting, and performance measurement and advocacy. The development of customized, first-generation asset management plans by planning district will ensure safe and reliable management of infrastructure and continuous improvement of the asset management program and provide FCPA with an in-depth understanding of the total cost of ownership for the parks system.

1.12.4 GEOGRAPHICALLY AND DEMOGRAPHICALLY ALIGN THE DELIVERY OF PROGRAMS AND SERVICES

The Consultant Team recommends that FCPA engage in ongoing analysis of the cross tabulation data from the Citizen's Needs Survey, health data made available to the County, and participation trends of programming and services in Fairfax County. By doing so, staff will be able to focus their efforts on offering the programs and services of the greatest need in each of the demographically diverse planning districts across the county and reduce or eliminate programs and services where interest is waning.

1.12.5 MEASURE ECONOMIC IMPACT

Economic impacts are effects on the level of economic activity in a given area. They may be viewed in terms of: (1) business output (or sales volume), (2) value added (or gross regional product), (3) wealth (including property values), (4) personal income (including wages), or (5) jobs. Any of these measures can be an indicator of improvement in the economic well-being of area residents, which is usually the major goal of economic development efforts.

The net economic impact is usually viewed as the expansion or contraction of an area's economy, resulting from changes in a facility, project or program. Sometimes there is also interest in assessing the economic impact of an already existing facility or project. This is usually viewed in terms of the jobs, income and/or business sales that are directly or indirectly supported by the facility or project. Such measures actually represent the gross effect -- i.e., the facility's or project's role in (or contribution to) the area economy. That is not necessarily the same as the net impact, particularly if other activities would be expected to enter or expand in the absence of this facility or project.

Economic impacts are different from the valuation of individual user benefits of a particular facility or service, and they are also different from broader social impacts. The user benefits and social impacts may include the valuation of changes in amenity or quality of life factors (such as health, safety, recreation, air or noise quality). Yet while these various types of benefits and impacts may be valued in economic (money) terms, through studies of individuals' or society's "willingness to pay" for improving them, they are not economic impacts (as defined above) except insofar as they also affect an area's level of economic activity.

Economic impacts also lead to fiscal impacts, which are changes in government revenues and expenditures. Economic impacts on total business sales, wealth or personal income can affect government revenues by expanding or contracting the tax base. Impacts on employment and associated population levels can affect government expenditures by changing demand for public services. Yet while they are related, fiscal impacts are not the same as economic impacts.

The consulting team recommends that the FCPA measure the impact that its facilities, parks and programs has on Fairfax County's economy and report the results to the Park Authority Board and the Fairfax County Board of Supervisors.

1.13 FUNDING STRATEGIES

The capital funding needed to implement this CIF far exceeds present available and projected funding. To help address the gap between anticipated funding available to FCPA and the needs reflected in the CIF, eleven alternative funding options were developed. These funding options need to be considered and incorporated as part of the overall fiscal strategy in the future.

1.14 CONCLUSION

The Needs Assessment is comprehensive and includes extensive data to support capital improvement needs and key recommendations. The Park Authority Board and staff recognize that the residents' recreation needs exceed available funding. It is important for project stakeholders, the Board, staff, and citizens of Fairfax County to keep in mind that these unmet needs will continue to exist and grow. This report will guide park planners, operators and managers to most efficiently use the funding that is available to best deliver park and recreation facilities and services in the most appropriate and equitable manner.

The Needs Assessment Report provides the Park Authority with very valuable information. Report results will be used to build future bond programs, guide agency submissions to the County's needs-based Capital Improvement Program, amend the County's Comprehensive Plan, respond to the agency's Strategic Planning initiatives, and support discussions on how to mitigate for park impacts from new development. This is a foundation report for 10 years of fiscal and strategic planning.

Fairfax County Park Authority is an outstanding park and recreation agency. The Park Authority has won the National Recreation and Park Association Gold Medal Award for Excellence three times and has the opportunity and ability to position itself to meet the growing County needs while building a park system that delivers the high expectations of the community.



CHAPTER TWO – NEEDS ASSESSMENT PROCESS

2.1 INTRODUCTION

Fairfax County loves its parks! Continuing to connect park users and the community to their extensive park system is the key to the successful strategic direction of the Fairfax County Park Authority (FCPA). Sound investments and public connections will ensure the public receives the full range of park benefits and value it expects and deserves. Public input, volunteerism, sponsorships, collaboration and contributions strengthen community partnerships through rewarding personal investments and experiences.

Every day, parks make a difference in the lives of residents, visitors, and workers and build a stronger, healthier community. As a strong organization, FCPA is focused on creating new opportunities to engage the community in positive activities. FCPA's dedicated, knowledgeable and hardworking employees are inspired by park patrons and contribute their best efforts to improving our quality of life. It is only through this mutual partnership that FCPA can ensure our community's needs are met, that natural and cultural resources are preserved and that facilities, services and programs continue to be delivered effectively.

The Needs Assessment is a tool to enable FCPA to focus on the agency's most pressing concerns and opportunities over the next ten years. In light of increasing demands and shrinking resources, it is more important than ever that FCPA strategically determine priorities that are aligned with the needs of the community.

2.2 PROJECT PURPOSE AND GOAL

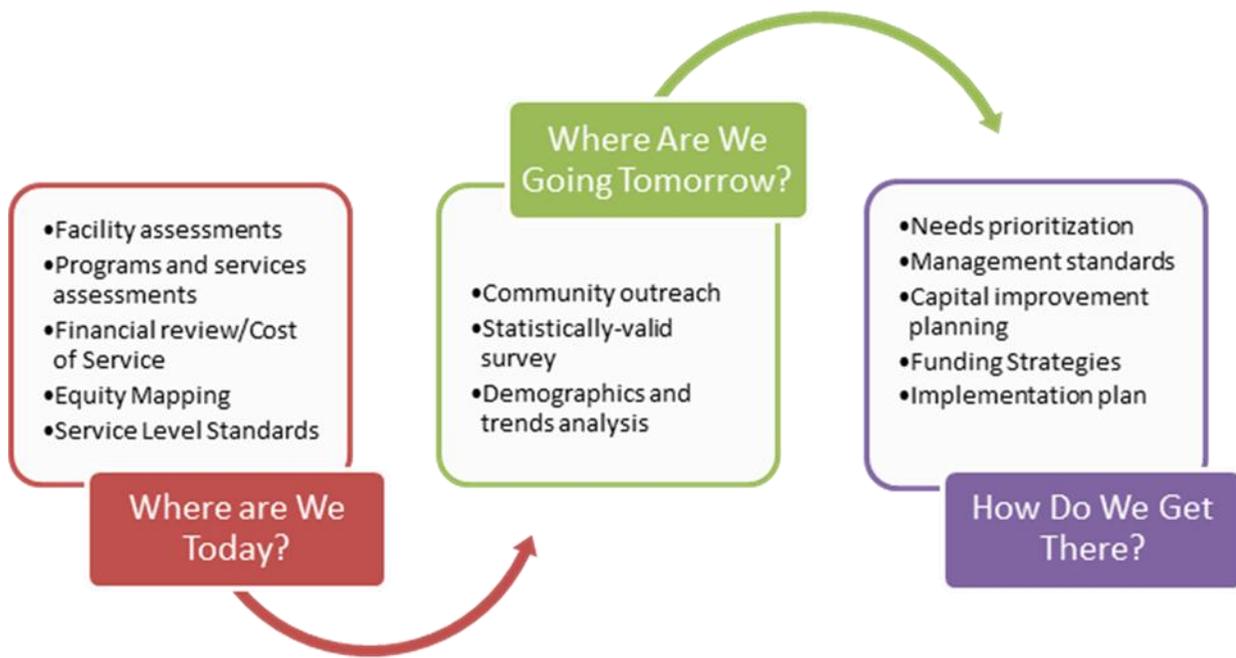
The Fairfax County Park Authority desires a countywide Parks and Recreation Needs Assessment to establish clear and realistic goals, objectives, and implementation strategies for the next ten (10) years to best meet the current and future park and recreation needs. The Parks and Recreation Facilities Needs Assessment will be used to define future land acquisition, facility renovation, and new capital improvements for a planning horizon reaching 10 years. The plan will also establish service level standards, evaluate growth impacts, and plan service provision.

As Fairfax County has seen its population continue to increase, so too has its diversity of residents (30% speak a language other than English at home). Consequently, demand for services provided by the County has grown and changed, which has impacted infrastructure and the need for facilities.

The final Parks and Recreation Needs Assessment was developed from a comprehensive process to determine the citizens' park and recreation needs and established standards and a phased Capital Improvement Plan to meet those needs. The result was an extensive needs assessment process, research findings and the recommended facility investments for the next 10 years. The recommended investments will be phased and prioritized with citizen needs in mind, which will result in a balanced park system.

2.3 PROCESS

The process of developing the FCPA *Needs Assessment* followed a logical planning path as illustrated below:



The foundation of the *Needs Assessment* was to “mine” local knowledge through the use of a creative and comprehensive public participation process. The public input process incorporated a variety of methods that included interviews, focus group meetings, crowd-sourcing and public forums. The data generated from these critical community interactions was used to aid the consulting team when accurately articulating the true unmet needs, addressing key operational issues, providing recommendations for business related changes, and strategizing to move the Fairfax County Park Authority forward for optimum results.

2.3.1 ELEMENTS

The elements of the *Needs Assessment* includes:

- The collection of relevant data and information.
- Data analysis to determine need and provision.
- Determination of supply and demand within the community.
- The recommendations for meeting the parks and recreation needs of the community for the next decade.

The data collected from the staff and assessments allowed the consulting team to identify key factors, issues, and concerns regarding the parks and recreation system.



2.4 NEEDS ASSESSMENT ORGANIZATION

This *Needs Assessment* presents the overall analysis, findings, and recommendations of the consulting team related to the areas outlined in the scope of services. This study begins with an Executive Summary that provides an overview, and the following sections respond to the desired categories outlined in the study scope to reveal findings, determine needs and to offer planning and capital improvement recommendations.

CHAPTER THREE – FAIRFAX COUNTY PARK AUTHORITY OVERVIEW

3.1 INTRODUCTION

Great Communities have Great Parks. With over 22,500 acres in 416 parks, the Fairfax County park system is well used and highly regarded. Parks are an essential element of life to residents of Fairfax County, about 80% of whom visit our parks each year to enjoy nature, historic sites, trails, sports, fitness, aquatics, programs, classes, events and so much more. Accredited and nationally recognized for excellence by the award of the prestigious Gold Medal for Parks and Recreation, Fairfax County's parks are ranked among the best in the nation.

As wonderful as FCPA's parks are, the agency must constantly strive to make sure it meets the changing needs of our diversifying and rapidly urbanizing community. As it looks to the future, Fairfax County will continue to grow and change:

- *Growing employment centers will attract a varied workforce*
- *More people with diverse backgrounds will reside here*
- *Many parts of the County will evolve into more urban places*
- *Lifestyles and leisure preferences will continue to change*

The Park Authority works to balance the park system in accordance with its mission to help make Fairfax County a healthy and unique place. The Park Authority's multi-faceted mission is to protect environmental and cultural resources within Fairfax County, as well as to create and sustain quality recreational facilities.

3.2 THE HISTORY OF FAIRFAX COUNTY PARK AUTHORITY

The Park Authority was created by the Fairfax County Board of Supervisors in 1950 when the Virginia General Assembly passed the Park Authorities Act (Sec. 15.1-1228 to 15.1-1238.1, Ch. 27, Code of Virginia) which permitted counties to establish individual authorities to preserve open space and acquire and develop park facilities throughout the state. The Park Authority has been an important part of the County's landscape since then.

Over the course of our sixty year history, the Park Authority has grown and evolved to meet the changing needs of the growing County. The Park Authority's first land purchase was a 16-acre tract in Great Falls, which later became the core of Great Falls National Park. In 1959 a 38-acre tract in Annandale was acquired and became the site of the Park Authority's first headquarters and Hidden Oaks Nature Center. The first park bond referendum was approved by County voters in 1959 and provided for the acquisition of 75 neighborhood and community parks and approximately 20 acres of stream valley lands. Around this time, the Park Authority acquired Sully Historic Site, an 18th century plantation now listed on the National Register of Historic Places that was built in 1794 by Richard Bland Lee, Northern Virginia's first Congressman.

During the second decade of operation, the Park Authority experienced substantial growth in land acquisition and park development. Between 1960 and 1970, parkland in Fairfax County increased from 414 acres to 4,615 acres. The 1960s saw the acquisition and development of Burke Lake Park, which at the time was the largest outdoor recreational park in the greater Washington D.C. area; the opening of Twin Lakes Golf Course and Lake Fairfax, developed with revenue bonds to be the Park Authority's first revenue generating facilities; and the acquisition of Colvin Run Mill, Lake Accotink, and land for development of Wakefield and Mount Vernon District Parks.

Wakefield Recreation Center (RECenter), opened in 1977 and later renamed Audrey Moore RECenter, became a model for other park and recreation organizations throughout the nation and set the stage for the subsequent construction of the Mount Vernon, Robert E. Lee, Providence, Oak Marr, Spring Hill, South Run, George Washington, and Cub Run RECenters.

During the 1970s and 1980s, years of rapid growth for the Park Authority, recreation opportunities were diversified with the development of Green Spring Gardens horticultural center and park, Kidwell Farm and the equestrian center at Frying Pan Park, golf courses, and athletic fields. The number of nature/visitor centers in operation to serve the community expanded to five and the Park Authority undertook the restoration of Dranesville Tavern, Cabell's Mill and Walney at Ellanor C. Lawrence Park, the Manor House at Green Spring Gardens, and the Wakefield Chapel.

The Park Authority vigorously continued to pursue its mission during the fifteen year span addressed by the 1995-2010 Park Comprehensive Plan. More than fifty new parks were added to the system through the acquisition of more than 6,500 acres of parkland. Although each new park contributes unique value, several of the more notable additions over this time span include Laurel Hill Park in Lorton, encompassing nearly 1,200 acres that includes a premiere 18-hole golf course, planned equestrian center, expansive trails, sports facilities, and various cultural and natural resources. Significant holdings were also acquired in the rural western reaches of the County to create the Sully Woodlands area, with over 2,000 acres including Elklick Preserve and its globally rare oak-hickory forests and natural communities. Old Colchester Park and Preserve in Lorton adds 139 acres on Mason Neck and fronts on the Occoquan River.

As of 2015, the County operates seven separate golf facilities and manages over 750 athletic fields including rectangle and diamond fields. Increasingly these fields are updated with synthetic turf and supplemental lighting to address increased demand for their usage. May 2006 saw the completion of the forty-mile long section of the Cross County Trail, linking many of these elements across the County.

Beyond the more traditional role of open space management, changing demographics in the region have led the Park Authority to expand and change as well. The Water Mine Family Swimmin' Hole was opened in 1996 at Lake Fairfax and offers more than an acre of slide, flumes, sprays, showers, floatables and interactive play features, all encircled by a tubing river. Starting with Blake Lane Park in 2000, the Park Authority now operates seven off-leash dog parks across the County. April 2004 saw the opening of the Wakefield Skate Park for skateboarders and BMX riders. Farmers Markets, operating from May to November in twelve locations, continue to increase in popularity.

3.3 FUNDING

Park funding is provided in three traditional fund types. County General Fund contributions from taxes fund general park administration and operation of non-revenue parks. The Park Revenue Fund consists of park revenues generated from fees and rentals produced by operations of revenue-generating sites. Land acquisition and facility development and renovation are generally funded through voter-approved General Obligations Bonds.



Since the 1990s, a greater reliance on the Revenue Fund and revenue sources has been necessary as the percentage of the overall County budget allocated to parks has decreased from 1.2% to 0.7%. The absorption of operational costs by the Revenue Fund has added pressures to revenue facilities such as RECenters and golf courses, especially as these facilities age and competition from private-sector providers' increases. Shifts in pricing, cost centers and fee generation have been necessary to sustain the Revenue Fund as it absorbs more General Fund costs. In the extreme budget cut years from FY 2008-10, the Revenue Fund viability has been extremely fragile. Continued revenue growth depends on facility development and reinvestment, which requires capital funding.

Capital funding through voter-approved bonds has been successfully used since 1959 to purchase parkland and build the park system. From its first land purchase of a 16-acre tract in Great Falls, the Park Authority has expanded its holdings to include more than 22,500 acres, about 9.5% of the entire County acreage. Acquired through the consistent support of Fairfax County citizens and the Board of Supervisors, eleven park referenda have been approved since the inception of the Park Authority, providing more than \$463 million for land acquisition and park development. Additional land donated through public-spirited citizens and the land development process has greatly contributed to the County's open space network.

As the County population increased and recreation became an essential part of the County's community life, the emphasis of the Park Authority gradually expanded from land acquisition to facility development. Park bond referenda earmarked 52% of total bond funds for development in 1971; 67% in 1977; and 92% in 1982. In 1988, 68% of the \$77 million bond referendum was allocated for construction projects with a significant portion of this funding allocated to major renovation projects for the first time. In a County with diminishing open space, the Park Authority remains committed to seeking land acquisition opportunities and constructing an ever broadening range of recreation facilities. This commitment has, overtime, led to an increasing focus on renovation of existing facilities and an emphasis on resource protection projects, termed as stewardship. With this focus, the allocation of capital funds has also shifted. This is demonstrated in the division of funds approved through the 2008 referendum allocating \$11.64 million to stewardship projects, \$19.74 million to renovations, \$14.38 million to land acquisition and \$19.23 million to park development.

In addition to these three funding means, public parks and recreational facilities may be provided by private entities through the development process. Developers of residential and mixed use communities frequently proffer, or offer to provide, facilities as a condition of a rezoning or similar action. These proffers have provided, and will continue to contribute, many key recreational facilities to County residents.

3.4 SUSTAINABILITY

As the Park Authority continues to acquire land, build facilities and manage various natural and cultural resources, the ability to care for and sustain them is essential and must remain in balance with shifting needs, use patterns, and financial resources. The next Agency Strategic Plan should focus on strategies to balance the sustainability of growing land resources, service demands and stewardship responsibility within the context of aging infrastructure and facilities, extensive community input, changing development patterns, shifting resources and political environments. Strategies must acknowledge the ongoing financial and staff resources required to sustain facilities and that some facilities desired by the public may be required/expected to be funded entirely through user fees.

3.5 GUIDING PRINCIPLES, POLICIES AND COUNTYWIDE PLANS

In 2010, the Park Authority owns over 22,500 acres of parkland in 416 parks that provide stewardship, interpretation, leisure and recreational opportunities through a rich variety of natural resources, facilities and services that enhance the quality of life for all Fairfax County residents, in accordance with its mission:

“To set aside public spaces for and assist citizens in the protection and enhancement of environmental values, diversity of natural habitats and cultural heritage to guarantee that these resources will be available to both present and future generations. To create and sustain quality facilities and services which offer citizens opportunities for recreation, improvement of their physical and mental well-being, and enhancement of their quality of life.”

The Park Authority has adopted a number of over-arching, County-wide plans to guide the agency’s efforts in different thematic areas. These documents are available on the Park Authority’s web page (links are provided below). Hard copies may be obtained by calling the Planning and Development Division at 703-324-8741. The guiding documents include the following:

- 2006-2011 [Strategic Plan](#) addresses several areas and initiatives which support the agency mission and represent major agency undertakings. A balanced scorecard approach is used to measure the Park Authority’s strategic performance. A new Strategic Plan will be adopted for 2012-2016 along with annual implementation plans that set forth specific strategic projects.
- The [Business Plan](#) creates a ‘road map’ to enable the Park Authority to stabilize its operations and position itself to better serve and meet the needs of the citizens of Fairfax County through a business model that enables the Authority to be more financially sustainable. Key steps in the development of the Business Plan were the identification, review and analysis of all core services and programs, determining full costs for each of the core program areas and constructing a sustainability model that accounts for all costs (direct, indirect and overhead) as well as annualized capitalized expenses for ongoing system repair and replacement. This funding model will be applied to all programs and services for the ongoing close management of the organization’s operations. The Business Plan contains a clear strategy for ongoing investment in new and renewed revenue generating facilities and programs through the CIP with regularly scheduled bond referenda. Finally, a cost-recovery target has been developed for each of the core programs and service areas. The Business Plan will be adopted late 2011.
- [Park Authority Policy Manual](#) reflects adopted Park Authority Board policies and guides decision making and park operations.
- Parks and Recreation [Needs Assessment](#), completed in 2004, identifies recreation needs, establishes parkland and facility service level standards and proposes a \$377 million 10-year Capital Improvement Plan (CIP) to meet park and recreation needs.
- Countywide [Parks and Recreation Policy Plan](#) element of the County Comprehensive Plan, updated in 2005, incorporates new service level standards, land acquisition criteria, revised Park Classifications and Countywide policies to protect park resources. The County Comprehensive Plan, Policy Plan also includes other guidance that supports Park Authority work, including the [Environmental Quality Corridor](#) policy.
- [Natural Resource Management Plan](#), adopted by the Park Authority Board in 2004, addresses natural resource issues and strategies. The plan contains seven elements: (1) Natural Resource



Management Planning, (2) Vegetation, (3) Wildlife, (4) Water Resources, (5) Air Quality, (6) Human Impact on Parklands, and (7) Education. Each of these elements is explored in the plan and strategies and issues are detailed. A separate implementation plan sets out specific projects relative to this plan.

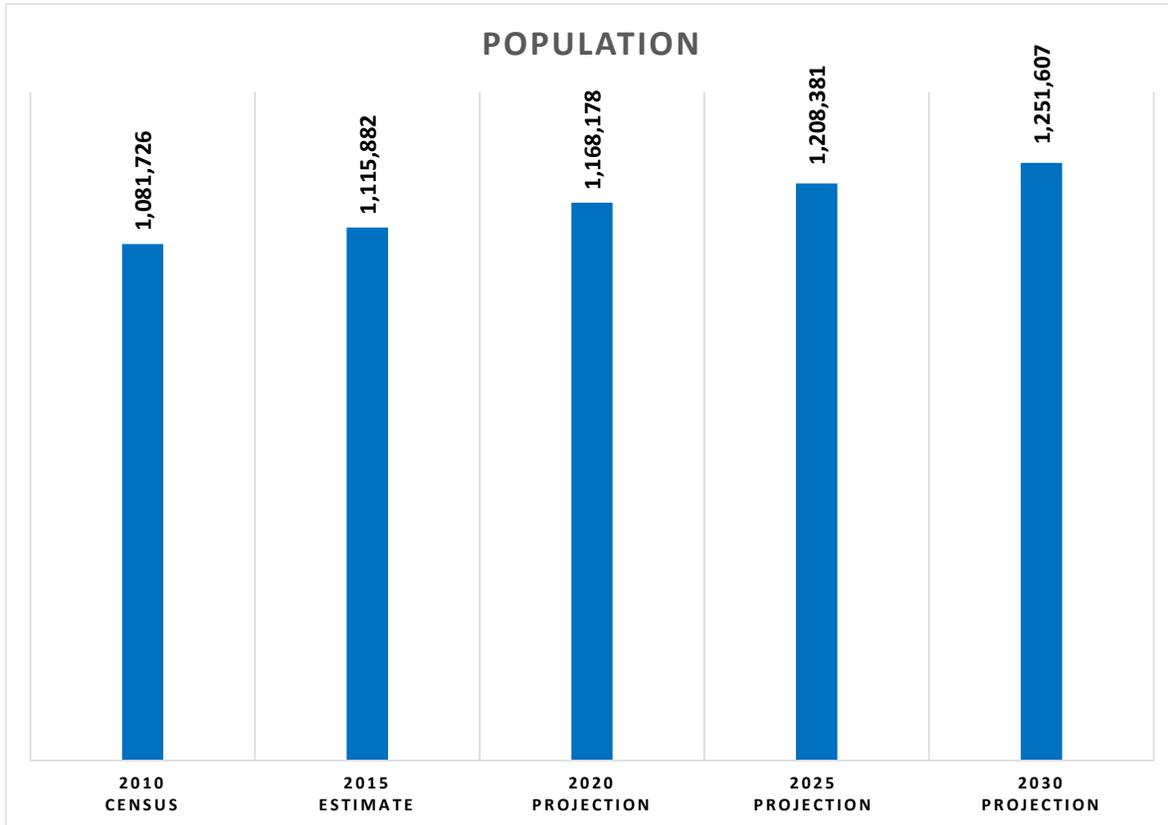
- Cultural Resource Management Plan (CRMP), adopted by the Park Authority Board in 2006 addresses cultural resource issues and strategies. The plan identifies 48 issues in 11 topic areas concerning management and protection of cultural resources. The areas include (1) planning, (2) archaeology, (3) Civil War sites, (4) artifacts and collections, (5) historic buildings, structures, objects and traditional cultural properties, (6) Fairfax County Historic Overlay Districts, (7) listings, (8) cemeteries, (9) cultural landscapes, (10) the human impact on cultural resources and (11) stewardship education. The CRMP proposes strategies to address each of the issues. A separate implementation plan sets out specific projects relative to this plan.
- Urban Parks Framework endorsed by the Park Authority Board in 2009, establishes an urban parks typology, urban park service level standards and framework for the development of urban parks in the County's growth and transit centers. The Framework details the several urban park design elements, which include (1) context/location, (2) function/purpose, (3) access, (4) ownership, management, and operation, (5) amenities, (6) form/visuals, (7) general length of stay, and (8) size and service area. It also describes the urban park typology: (1) pocket park, (2) common green, (3) civic plaza, and (4) recreational urban park.
- Trail Strategy Plan examines the issues surrounding trail development, collects and analyzes the relevant data concerning trail projects, and devises the best process for objectively evaluating and prioritizing trail projects.
- Countywide Facility Lifecycle Replacement Schedules use facility installation dates and facility life expectancy standards based on historic operations and maintenance records and apply the best knowledge of the parks and recreation industry. Facilities should be replaced according to this schedule to ensure they provide service or capacity at the level for which they were designed while receiving routine maintenance.
- Comprehensive Financial Management Plan provides revenue and expenditure projections and principles for the management of the Park Authority's Revenue Fund (Fund 170) and other related issues.
- A Park Authority Marketing and Communication Plan is being developed to provide strategic guidance for the agency's marketing and communication activities. A draft of the plan is anticipated in the fall of 2011.

3.6 DEMOGRAPHIC AND MARKET ANALYSIS

To better understand the Fairfax County population and key characteristics such as age segments, income levels, race, and ethnicity, the study examined current and future demographics using the Environmental Systems Research Institute (ESRI) database. Future projections are based on historical patterns and there is the potential for unforeseen circumstances during or after the time of the use. The potential shifts may have a significant bearing on the validity of the final projections offered in this study.

3.6.1 FAIRFAX COUNTY POPULATION

The population of the Fairfax County has increased from 1,081,726 residents in 2010 to 1,115,882 in 2015. This represents an increase in the County’s total population by an annual rate of 0.63%, which is below the national growth average of 1% annually. Projecting forward, the growth rate is expected to continue to rise at an annual rate of just over 0.8% for the next 15 years. Based on those assumptions, the County is expected to have approximately 1,251,607 residents in 2030.

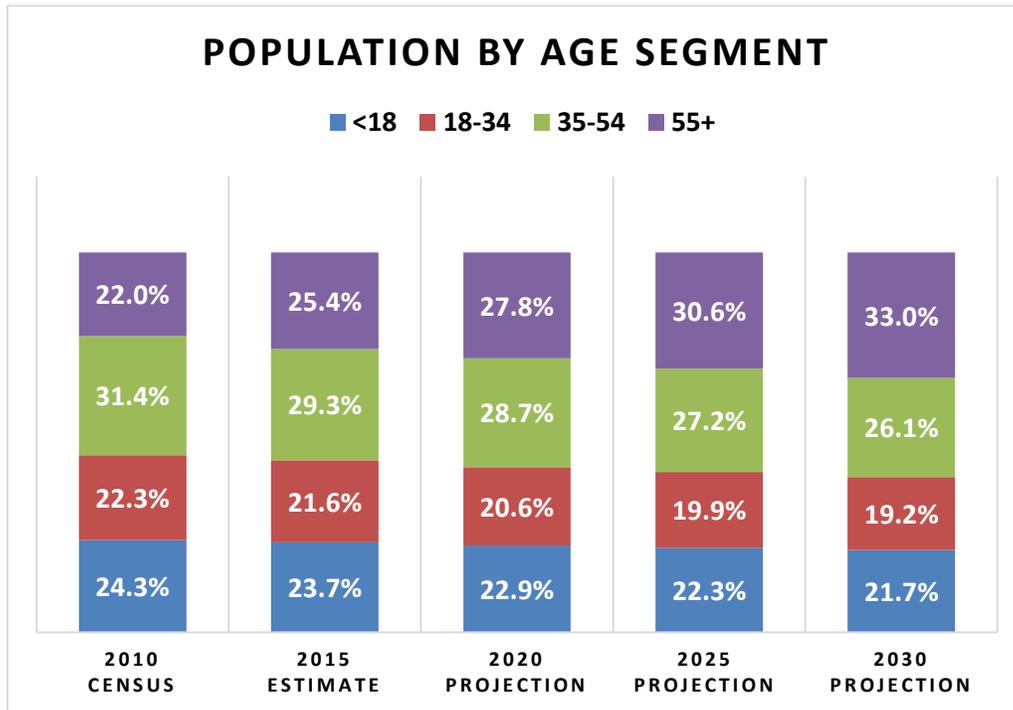


Source: Environmental Systems Research Institute



3.6.2 FAIRFAX COUNTY AGE SEGMENTATION

By 2030, it is projected that the active adult population (55+) will make up 33% of the population, making it the largest age segment in Fairfax County. This echoes a national trend of increased life expectancies and the movement of the baby boomer generation through the lifespan.

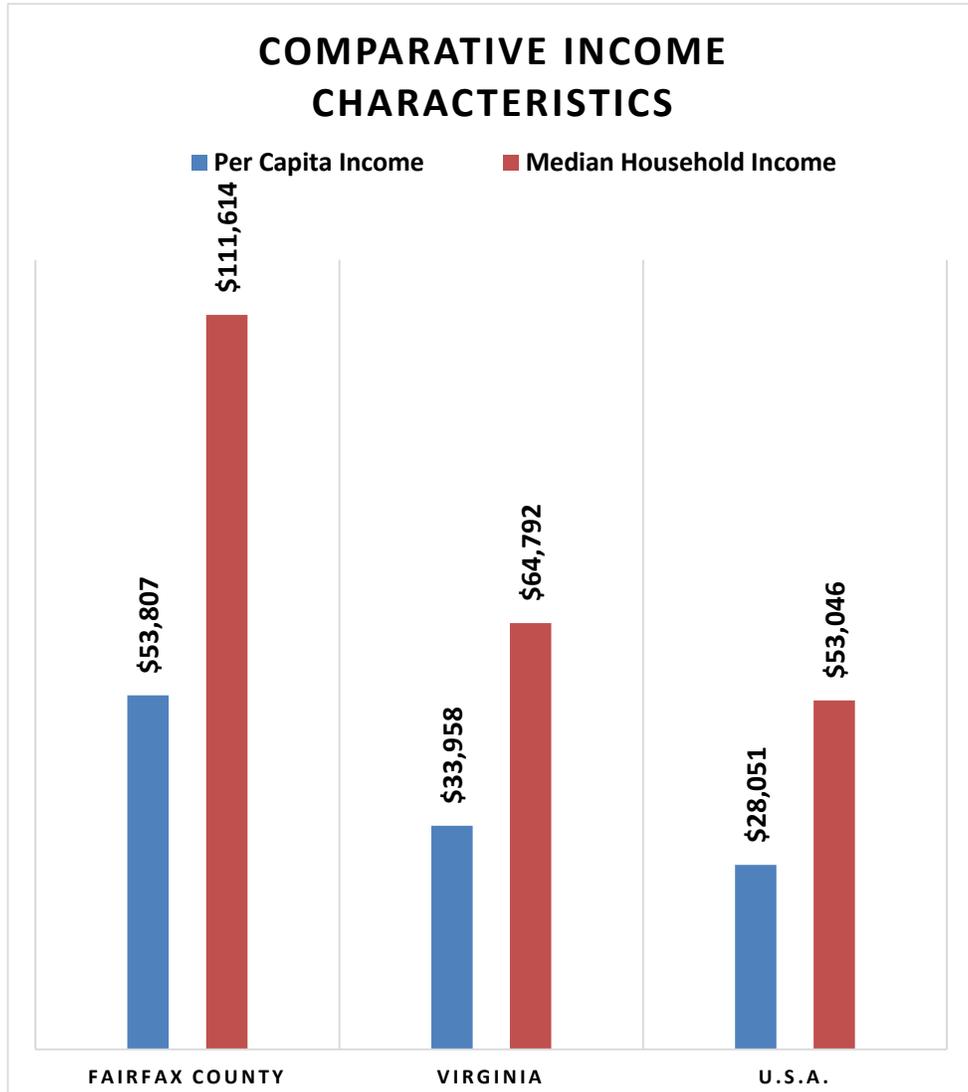


Source: Environmental Systems Research Institute



3.6.3 FAIRFAX COUNTY INCOME

Fairfax County’s per capita income and median household income levels are significantly higher than state and national averages.

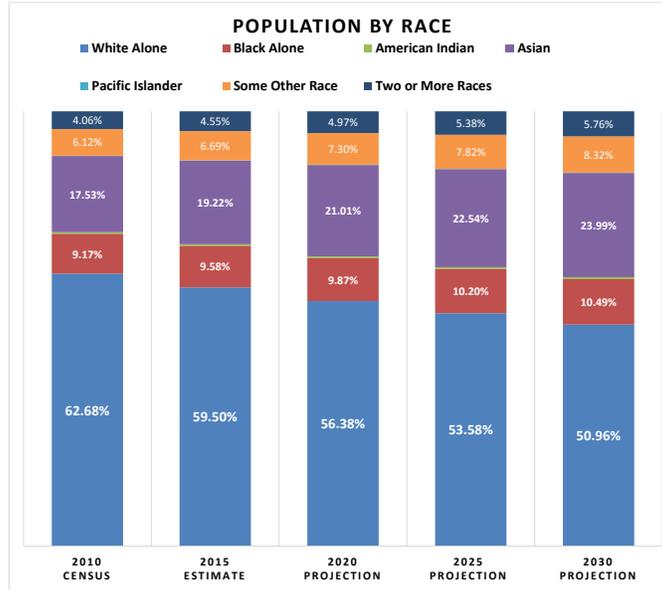


Source: Environmental Systems Research Institute

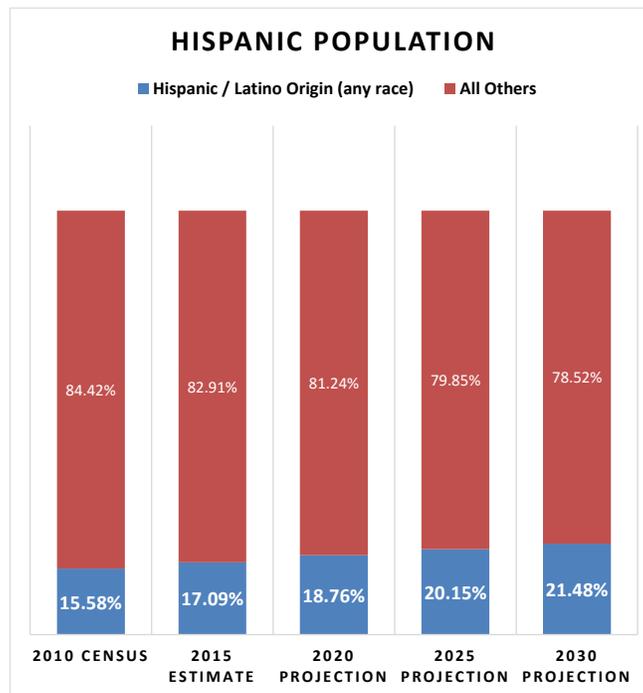


3.6.4 FAIRFAX COUNTY ETHNICITY

Fairfax County is diverse, and the community is expected to continue diversifying. By 2030, projections estimate that nearly one out of every four residents in Fairfax County will be of Asian descent and just over one out of every five will be of Hispanic origin.



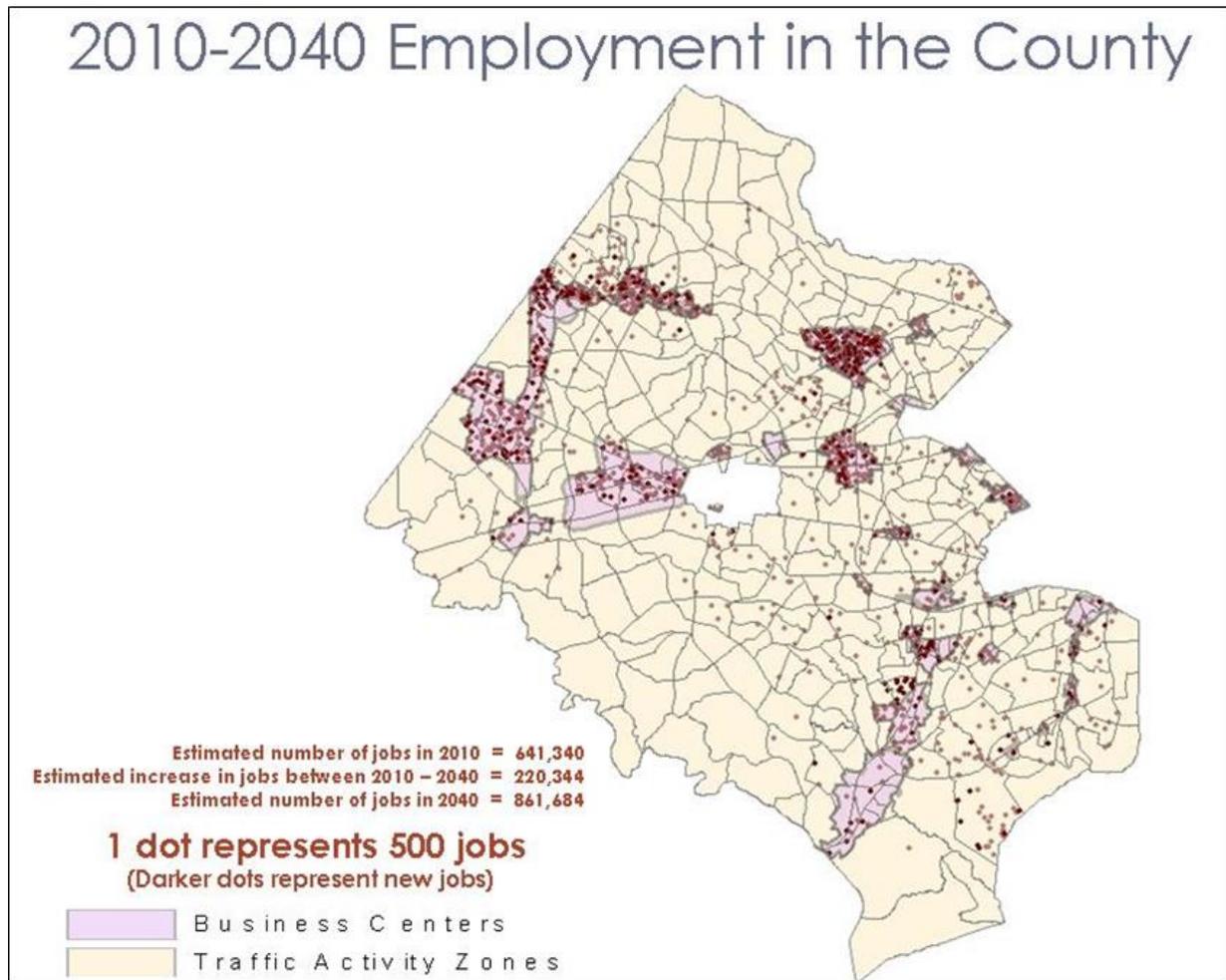
Source: Environmental Systems Research Institute



Source: Environmental Systems Research Institute

3.6.5 FAIRFAX COUNTY EMPLOYMENT GROWTH

Fairfax County has evolved into a major employment center within the Washington, DC metropolitan region. While the population doubled in size from 1970 to 2005, the number of jobs located in Fairfax County increased almost six-fold. Map 2 shows the geographical concentration of jobs in the County, both current estimated employment (2010) and employment projected through 2040. Of the 220,000 new jobs anticipated by 2040, roughly 40% (about 90,000) of those new jobs are projected to be added from 2010 - 2020, the horizon year for this plan. Most of the new jobs will be concentrated in employment centers, such as Tysons Corner, Springfield, Reston and along the Dulles Corridor. The following map depicts employment growth in Fairfax County into the middle of the 21st century.



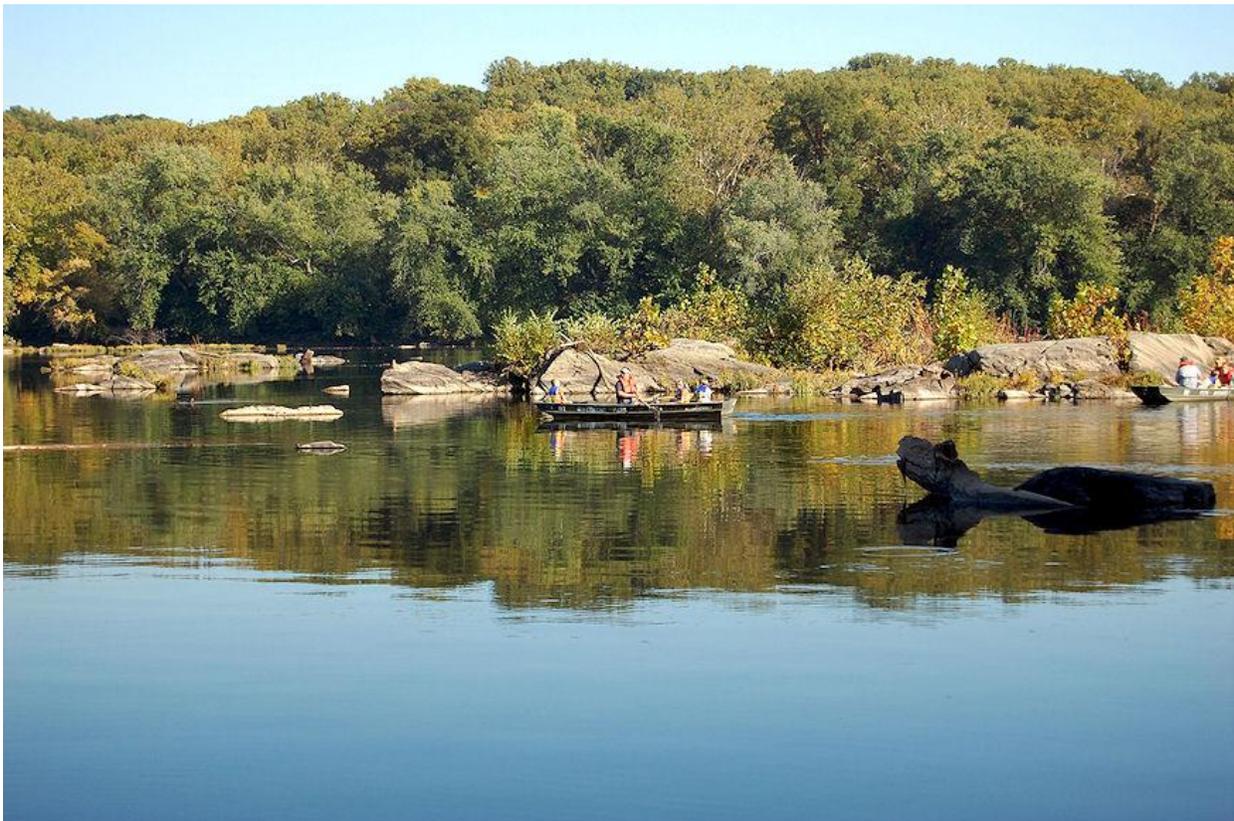
3.6.6 FAIRFAX COUNTY MAJOR ANTICIPATED LAND USE CHANGES

The County's agricultural economy has virtually disappeared. Today it is difficult to preserve any remaining farm land, conserve areas of high environmental and scenic value, or protect open space for passive and active recreation purposes because of land values and the pressure of development. However, continued development and population growth pressures will create additional need for protected open space as well as recreational facilities that will serve the population.



Most of the southern, eastern and central parts of the County are now built out and new development opportunities will primarily be infill or redevelopment in these established areas. There are a few large undeveloped tracts of privately-owned land that remain in the western part of the County, and market forces may easily lead to development of those few instead of open space preservation or development of recreation facilities. Few large tracts of land remain available for parkland acquisition.

The greatest concentration of new development and associated growth is anticipated to occur in designated, mixed use centers, identified in the Concept for Future Development in the Comprehensive Area Plans. Designated areas include the Tysons Corner Urban Center, major suburban centers (such as the Fairfax Center Area), Transit Station Areas, Community Business Centers and Commercial Revitalization Districts. These areas will absorb the greatest numbers of new residents to Fairfax County and, consequently, will generate the greatest new demand for park and recreation facilities. Map 3 shows the location of these major development centers and their relationship to the park system in Fairfax County. The nature of these mixed use areas will be different than other traditionally suburban areas of the County. As such, the way that park and recreational needs are met in these mixed use urbanizing areas must also be different. The Urban Parks Framework will help guide the integration of parks in many of these urbanizing areas. As described above, the Urban Parks Framework establishes an urban parks typology, urban park service level standards and framework for the development of urban parks in the County's growth and transit centers through collaboration with the development community.



3.7 RECREATION TRENDS ANALYSIS

Information released by Sports & Fitness Industry Association’s (SFIA) 2015 *Study of Sports, Fitness, and Leisure Participation* reveals that the most popular sport and recreational activities include: fitness walking, running/jogging, treadmill, free weights, and road bicycling. These activities appeal to a range of ages, can be done in most environments, are enjoyed regardless of level of skill, and have minimal economic barriers to entry. These activities also have appeal because of the social aspect. For example, although fitness activities are mainly self-directed, people enjoy walking and biking with other individuals because it can offer a degree of camaraderie.

Fitness walking has remained the most popular activity of the past decade by a large margin, in terms of total participants. Walking participation during the latest year data was available (2014), reported over 112 million Americans had walked for fitness at least once.

From a traditional team sport standpoint, basketball ranks highest among all sports, with approximately 23 million people reportedly participating in 2014. Team sports that have experienced significant growth in participation are rugby, lacrosse, field hockey, ice hockey, roller hockey, and gymnastics - all of which have experienced double digit growth over the last five years.

In the past year, the estimated number of “inactives” in America has increased 3%, from 80.2 million in 2013 to 82.7 million in 2014. According to the Physical Activity Council, an “inactive” is defined as an individual that doesn’t take part in any “active” sport. Although inactivity was up in 2014, the 209 million “actives” seem to be participating more often and in multiple activities.

Greater detail of the national trends study is summarized in Appendix A of the report.

3.7.1 LOCAL TRENDS - MARKET POTENTIAL

Market Potential Data (MPI) measures the probable demand for a product or service in a target area, and communicates the likelihood that a resident of the service area will exhibit certain consumer behavior when compared to the US National average. The National average is 100, therefore, an MPI above 100 represents a higher than average participation rate. The following chart illustrates the index of the greatest sport and leisure market potential in Fairfax County and the correlating programmatic and facility needs.

Product/Consumer Behavior	Market Potential Index	Program Need	Facility Need
Participated in yoga in last 12 months	151	Fitness and Exercise	Group Exercise Studios
Participated in tennis in last 12 months	143	Tennis Instruction	Tennis Courts
Participated in hiking in last 12 months	142	Outdoor Recreation	Trails
Participated in ice skating in last 12 months	142	Ice Skating/Hockey	Ice Arenas
Participated in Pilates in last 12 months	142	Fitness and Exercise	Group Exercise Studios
Participated in aerobics in last 12 months	136	Fitness and Exercise	Group Exercise Studios
Participated in weight lifting in last 12 months	131	Fitness and Exercise	Fitness Centers within RECenters
Participated in bicycling (road) in last 12 months	126	Outdoor Recreation	Bike Lanes/Commuter Trails
Participated in bicycling (mountain) in last 12 months	125	Outdoor Recreation	Mountain Bike Trails
Participated in soccer in last 12 months	119	Youth and Adult Sports	Multi-Purpose Fields
Participated in backpacking in last 12 months	113	Outdoor Recreation	Trails
Participated in swimming in last 12 months	113	Swim Instruction	Swimming Pools
Participated in walking for exercise in last 12 months	111	Walking Programs	Trails
Participated in Frisbee in last 12 months	109	Disc Golf/Ultimate Frisbee	Disc Golf Course & Multi-Purpose Fields
Participated in canoeing/kayaking in last 12 months	108	Outdoor Recreation	Access to Rivers/Lakes
Participated in golf in last 12 months	103	Golf Instruction/Leagues	Golf Courses



CHAPTER FOUR - NATURAL RESOURCE ASSESSMENT

Natural resource protection is one of the more scientific and complex functions of the Fairfax County Park Authority that includes the protection of biodiversity through planning and policy, conservation, restoration and the monitoring and management of natural environments. Natural resource protection is guided by local, state and federal law and policies. The following sections summarize the methodology, key findings and key recommendations for the assessment of the Park Authority's natural resource functions. Detail of the assessment can be found in the Appendix B of the report.

4.1 METHODOLOGY

The Consulting Team utilized an iterative approach to determine the full cycle, multi-phase (i.e. assessment, installation, monitoring, and maintenance) resource management costs for select resource management activities.

4.2 KEY FINDINGS

4.2.1 ALIGNMENT WITH COUNTY AND FCPA POLICY

The work performed by Natural Resources contributes significantly to county and park authority policies, including, but not limited to:

- Fairfax County Park Authority Policy Manual
- Fairfax County Environmental Vision Plan
- Fairfax County Comprehensive Plan, 2013 Edition - Parks and Recreation
<http://www.fairfaxcounty.gov/dpz/comprehensiveplan/policyplan/environment.pdf>
- Great Parks Great Communities Countywide Chapter
http://www.fairfaxcounty.gov/parks/plandev/downloads/gpgc_countywide.pdf
- Natural Resource Management Plan
<http://www.fairfaxcounty.gov/parks/resource-management/nrmp.htm>

4.2.2 COMMUNITY VALUE

In the 2015 Needs Assessment Citizen Survey performed by ETC Institute, preserving open space and the environment was deemed to be the most important function for Fairfax County Park Authority to perform.

4.2.3 SERVICE LEVEL AND SCOPE:

- Inventory: Of the Fairfax County Park Authority's land holdings, 73% or about 17,000 acres is comprised of natural area. This is indicative that, through the application of best practices in planning, FCPA has been proactive in protecting and enhancing the natural environment in an urban setting.
- Active Management: The scope of "in-the-field" work performed by the Park Authority is expansive and includes activities such as resource inventories, however, the percentage of natural area acreage that is actively maintained - performing maintenance tasks to manage natural areas) is only 28% or 4,720 acres.

- **Maintenance Standards:** Maintenance standards are intended to enable an agency to improve the identification, justification, and prioritization of maintenance requirements for park-and-recreation assets. Standards are organized into a tiered structure with three different levels of service (Level 1, Level 2, and Level 3). These levels have a unique standard that dictates routine maintenance tasks and their frequency. The appropriate maintenance level is assigned to each park or site, which creates a framework for organizing and scheduling tasks and responsibilities at each location. Level 1 maintenance standards require the most resources and are performed with regularity and high frequencies, whereas Level 3 tasks are performed infrequently and/or on an as needed basis, if resources are available.

The Consulting Team did not perform an analysis of the current management and maintenance standards that are utilized by FCPA, however, the conclusion can be drawn that it currently performs approximately 90% of its maintenance in the 4,720 acres of natural areas that it maintains at a Level 3 (or less) service standard and the application of maintenance standards is inconsistent across the system. This service level is BELOW the majority of natural area management systems by agencies across the country in which Level 1 and Level 2 standard work is performed at 25% or greater.

4.2.4 SERVICE EFFICIENCY (COST OF SERVICE)

Currently, funding natural resource management functions is primarily through tax dollars and amounts to approximately \$700,000 annually. As noted previously, the 17,000 acres of natural areas makeup approximately 73% of the total acres of the system with only 4,720 being actively managed. The unit cost of \$148.31 to maintain an acre of natural area in Fairfax County is extremely low, even when performing work at a Level 3 service standard. The typical range of unit costs for maintaining natural areas at a predominately Level 3 service standard in Climate Zones 7 of North America is \$3000-\$6000 per acre. By this standard, the FCPA's natural resource management function is underfunded by a minimum of \$2,351.69 per acre annually and is operating extremely efficiently.

4.2.5 SERVICE FUNDING SUSTAINABILITY

Natural resource management is classified as a core essential service within the FCPA. Core essential services are traditionally supported by tax dollars. Grants and donations are other sources of revenue that are available for management of "natural area" land. The tax supported funding that FCPA currently receives is more than sustainable, but also far less than sufficient. Based on the typical range of unit costs, the division is receiving only 5% of the "best practice funding targets" for work performed at a Level 3 service standard in natural areas.

4.2.6 SERVICE EFFECTIVENESS

Though some level of effectiveness is measured and reported annually, at the onset of the Cost of Service Analysis, the Natural Resources Branch did not have true performance measures in place that could determine the level of success in which it was achieving its intended outcome: Protecting and enhancing the natural environment in Fairfax County. Without performance measures, the Natural Resources Branch measured its success in citizen satisfaction and compliance with County and Park Authority policies.



4.3 KEY RECOMMENDATIONS

4.3.1 KEY ACTIVITY COST OF SERVICE

Although natural resource protection is highly valued, funding for natural resource management is far below that of best practices. The following provides best practice targets for funding the primary functions of the Natural Resources Branch. (FCPA currently does not track costs for each of the management strategies identified below).

Management Strategy	National Average Annual Cost per Acre
Resource, inventory, mapping, and planning	\$500-\$1000 per acre
Non-native invasive plant control to exhaust the plant seed bed	Total cost including labor (\$150-\$250) and herbicide (\$50-\$100)=\$200-\$350/acre (does not include reseeding)
Deer management to reduce herds to a maintenance level-15 deer/square mile	\$35 per acre for every 100 acres for 6 wire high tensile electric fence; Sharpshooting contracts - \$143/acre
Land management (e.g., mowing, tree clearing, burning)	Clearing - \$12-\$18/ acre for Brush hog; \$60-\$75/acre (herbicides) Mowing - \$20-\$25 per acre Prescribed Burning - \$30-\$50/acre
Restoration (e.g., herbaceous, forested) including appropriate warranty monitoring and maintenance	Reforestation - \$70-\$250/acre Herbaceous - \$1500-\$2500 Maintenance - 15-25% of cost of project
Forestry Treatments	Understory competition release cut - \$1,905/acre Selective thinning - \$3,063/acre Shelterwood cut-\$10,071/acre Prescribed forest burn - \$83/acre Shelterwood cut and NNI stabilization - \$3,815/acre SMASH meadow - \$8,027/acre Understory planting - \$33,250/acre Light gap incubator - \$2,048/acre

4.3.2 INVENTORY, CLASSIFICATION, MAPPING, AND DIGITAL DATA CREATION COST OF SERVICE

The highest priority for natural resource management activity is to survey and classify all vegetation communities on Fairfax County Park Authority (FCPA) lands. This project will produce a planning-level geographic dataset and map and inform prioritized management activities and funding allocations. Two project options and associated costs are presented on the following pages.

BUDGET NARRATIVE – CONTRACTOR OPTION

The following budget includes all costs to complete the project utilizing a contractor. Personnel will fund one E-status Ecologist II for half-time for the duration of the project. The Ecologist II will manage the project by coordinating the contractor, communicating with site staff, and other activities to ensure project completion with minimal impact to operations. Fringe Benefits will support the Ecologist II. Travel funding will pay for half of a rental car for two years. The rental car will be used by the project manager to visit sites and coordinate contractors. The other half of the rental car funding will be shared with another ongoing project. Supplies will fund the office and field supplies needed by the Ecologist II to complete the project. Contractual will fund the contractor services to complete the project.

Personnel			
Position	Rate	Hours	Cost
Ecologist II	\$35.77/hour	1560	\$55,801
Sub-total Personnel			\$55,801
Fringe Benefits			
Description	Rate		Cost
Total Personnel	11.322%		\$6,318
Sub-total Fringe			\$6,318
Travel			
Description	Rate	Number	Cost
Rental Car	\$700/month	12	\$8,400
Sub-total Travel			\$8,400
Supplies			
Description	Rate	Number	Cost
Operating Supplies	\$500	2	\$1,000
Total Supplies			\$1,000
Contractual			
Description	Rate	Number	Cost
Contractor Services	\$23.50	23,720	\$557,420
Sub-total Contractual			\$557,420
GRAND TOTAL			\$628,939





BUDGET NARRATIVE – IN-HOUSE OPTION

The following budget includes all costs to complete the project with in-house staff. Personnel will fund one full-time E-status Ecologist II and two full-time E-status Ecologist I staff for the duration of the project. The Ecologist II will manage the project by coordinating the contractor, communicating with site staff, and other activities to ensure project completion with minimal impact to operations. The Ecologist II will also train and supervise Ecologist I personnel and perform fieldwork and data processing activities. Ecologist I staff will primarily perform fieldwork and some data processing. Fringe Benefits will support the project personnel. Travel funding will pay for a rental car for two years. The rental car will be used by staff to conduct and coordinate field activities. Supplies will fund the office and field supplies needed to complete the project and include office and field supplies, tablet computers for field data collection, and mobile data plans to support the tablet computers.

Personnel			
Position	Rate	Hours	Cost
Ecologist II	\$35.77/hour	3120	\$111,602
Ecologist I	31.05/hour	6240	\$193,752
Sub-total Personnel			\$305,354
Fringe Benefits			
Description	Rate		Cost
Total Personnel	11.322%		\$34,572
Sub-total Fringe			\$34,572
Travel			
Description	Rate	Number	Cost
Rental Car	\$700/month	24	\$16,800
Sub-total Travel			\$16,800
Supplies			
Description	Rate	Number	Cost
Field and Office Supplies	\$800/year	2	\$1,600
Tablet Computer	\$1,200	3	\$3,600
Mobile Data Plan	\$1,000/year	3	\$3,000
Total Supplies			\$8,200
GRAND TOTAL			\$364,927



CHAPTER FIVE – CULTURAL RESOURCES ASSESSMENT

Virginia is one of the richest historical areas in all of America. Events and many historical figures that shaped our country's history are associated with Fairfax County. Documenting and preserving the country's past is essential. FCPA has a key responsibility to preserve and interpret the county's history for future generations who will live, work, and play in Fairfax County.

The archaeologists of the Cultural Resource Management and Protection team find evidence of Native American life, early exploration, our colonial past, 19th century development and the Civil War, adding to the heritage of the county and the nation. This includes illuminating the history of people who did not necessarily write it for themselves - Native Americans, African Americans, both enslaved and free, women and children, and other ordinary county citizens.

The Cultural Resource Management and Protection offices are housed in the James Lee Community Center in Falls Church. In addition to office space for CRMP staff, the James Lee Community Center is home to three labs that are used by staff and volunteers to clean, analyze, and catalog prehistoric and historic artifacts. The center is also home to archival space which contains the county's collection of over three million artifacts, spanning the last 13,000 years of Fairfax County's history. Museum artifacts are housed in various FCPA parks but primarily at the Walney Visitor Center at EC Lawrence Park and the James Lee Center. The following sections summarize the methodology, key findings and key recommendations for the assessment of the cultural resource management functions. Detail of the assessment can be found in Appendix C of the report.

5.1 METHODOLOGY

The Consulting Team utilized an iterative approach to determine the full cycle, multi-phase (i.e. assessment, installation, monitoring, and maintenance) resource management costs for select resource management activities.

5.2 KEY FINDINGS

- Alignment with County and FCPA Policy: The work performed by Cultural Resources contributes significantly to county and Park Authority policies, including, but not limited to:
 - Fairfax County Park Authority Policy Manual
 - Fairfax County Comprehensive Plan, 2013 Edition - Heritage Resources
<http://www.fairfaxcounty.gov/dpz/comprehensiveplan/policyplan/heritage.pdf>
 - Great Parks Great Communities Park System Plan
http://www.fairfaxcounty.gov/parks/plandev/downloads/gpgc_countywide.pdf
 - Cultural Resources Management Plan
<http://www.fairfaxcounty.gov/parks/gmp/crmpfinal.pdf>
- Community Value: In the 2015 Needs Assessment Citizen Survey performed by ETC Institute, conserving and educating people about historic sites ranked in the top seven of the most important functions for Fairfax County Park Authority to perform.
- Service Level and Scope:
 - The Fairfax County Park Authority is committed to protecting cultural and historic resources in Fairfax County and contributing to citizen quality of life through sound



archaeological practices. Best practices, current science and staff training ensure the preservation of cultural resources, adherence to legislative requirements and contributions to citizen knowledge and enjoyment. Further, the division offers volunteer opportunities, education and cultural and historic awareness to provide citizens with a better understanding and appreciation of rich heritage of Virginia and the county.

- The Fairfax County Park Authority conducts, work, operates, performs and maintains a variety of best practice functions related to cultural resources. Of the agencies benchmarked, FCPA is one of only three that performs all of the best practice cultural resource functions. This is indicative that, through the application of best practices in archaeology and preservation, FCPA has been proactive in protecting and enhancing the cultural and historic resources in an urban setting.
- Guiding Principles and Practices: The scope of “in-the-field” cultural resource management and protection work performed by FCPA is expansive and all-encompassing and is guided by principles, policies and practices that ensure work is performed at the highest standard.

5.3 KEY RECOMMENDATIONS

- Cost of Service: FCPA values the work performed by Cultural Resources, however, funding for the management functions is approximately \$500,000 in annual operational funding below that of best practices. The following provides best practice targets for funding the primary functions of cultural resource management and protection.

ARCHAEOLOGICAL SURVEYS

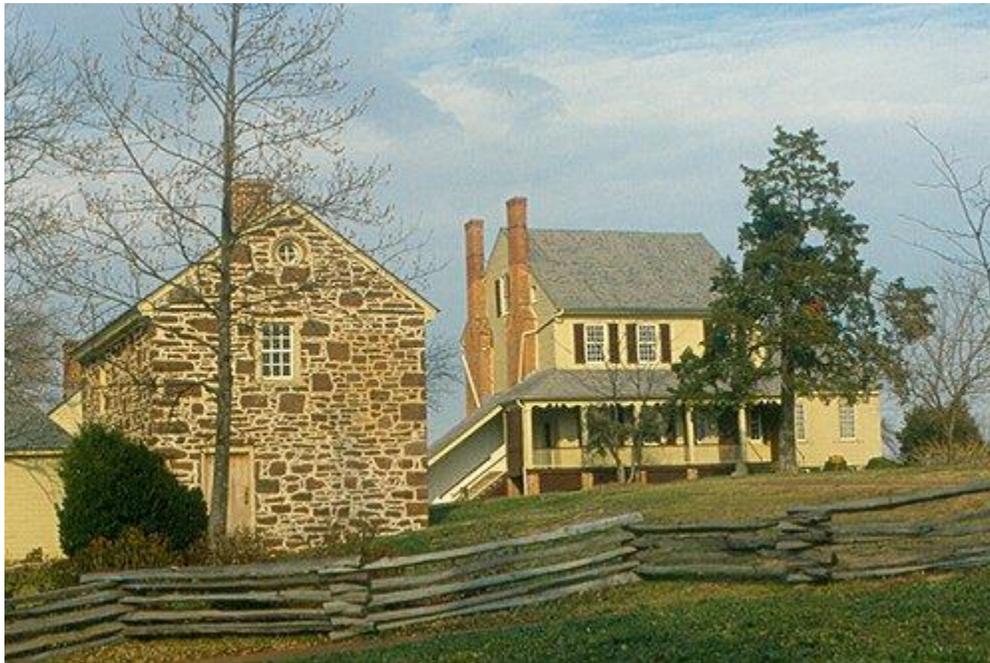
ARCHAEOLOGICAL ACTIVITY	COST
HOURLY WAGES TO CONDUCT SURVEY	
Hourly Wages for Senior Staff to conduct Archaeological Survey	\$50-\$100 per hour
Hourly Wages for Laboratory and Field Staff to conduct Archaeological Survey	\$30-\$50 per hour
PEDESTRIAN ARCHAEOLOGICAL SURVEY	
Field Reconnaissance	\$20-\$30 per acre
Research, Mapping, Form Preparation, Report	\$1500-\$3000 per survey
PHASE I ARCHAEOLOGICAL SURVEY	
Archaeological Fieldwork	\$500-\$1000 per acre
Research Design and Background Research	\$1500-\$3000 per survey
Laboratory Processing, Analysis, Curation and Reporting	Dependent on quantity, density and variety of artifacts
PHASE II ARCHAEOLOGICAL SURVEY	
Data Recovery Program	\$250-\$500 per square feet
ARCHAEOLOGICAL MONITORING	
Hourly Wage (minimum of 4 hours) with 24 hour notice	\$35-\$50 per hour

HISTORIC BUILDINGS

HISTORIC BUILDING ACTIVITY	COST
DOCUMENTATION	
Full Documentation of a Historic Building	\$30-\$50 per square foot
STABILIZATION	
Stabilization of Historic Building (dependent upon the size and condition of the building)	\$2500-\$5000

ARCHAEOLOGICAL AND MUSEUM COLLECTIONS

ARCHAEOLOGICAL AND MUSEUM COLLECTIONS ACTIVITY	COST
MUSEUM OPERATIONS	
Museum Operational costs less curation costs	\$35-\$50 per square foot
Hourly Wages for Laboratory and Field Staff to conduct Archaeological Survey	\$30-\$50 per hour
CURATION OF ARTIFACTS	
Curation of Artifacts - Standard Box (15" x 12.5" x 10")	\$300-\$400 per standard box
Curation of Artifacts - Half Box	\$150-\$250 per half box
HELD IN-TRUST COLLECTION BOX COSTS	
One-Time In-Coming Cost	\$300-\$400 per box
Annual Maintenance Cost	\$60-\$75 per box
DEEDED COLLECTION BOX COSTS	
One-Time In-Coming Cost	\$1000-\$2000 per box





CHAPTER SIX – RECENTER FACILITY ASSESSMENTS

6.1 INTRODUCTION

RECenter Facility Assessments were conducted on eight of the nine FCPA facilities (Mount Vernon was excluded because an in depth assessment was already in process as part of an ongoing project) as part of a System-Wide Needs Assessment. The purpose of the assessments is to evaluate the existing conditions and functionality of the building systems and determine the life expectancy of each of the main building elements for each RECenter. The assessments also provide estimates of the cost to repair, replace, or modify each element to meet the use requirements or the Expected Facility Life Cycle Standards set by FCPA and when the repairs should be expected within the life of the building. The results of the assessments are summarized in this report and a proposed budget of the expected costs is provided on a fiscal year by fiscal year basis and included in the CIF.

The Assessment Team assembled by PROS Consulting consists of the following firms:

- Williams Architects (site, building envelope, building structure, and interior finishes)
- B2E Consulting Engineers (mechanical, electrical, plumbing, and fire protection systems)
- Williams Aquatics (aquatic systems)

The Assessment Team was supported by members of RECenter facility staff and FCPA maintenance personnel who supplied key information regarding building and system performance. These individuals also provided considerable insight into the functional relationships and challenges present within the facility that affect customer service. The following sections summarize the methodology and key recommendations for each RECenter assessed. Detail of the assessments can be found in Appendix D of the report.

6.2 METHODOLOGY

The Assessment Team conducted the Facility Condition Assessment in 2014-15. Specific areas of investigation included the following areas:

- Site (S)
- Building Envelope (E)
- Interior Finishes (F)
- Mechanical (M)
- Electrical (EL)
- Plumbing (P)
- Fire Protection (FP)
- Aquatic (A)

To facilitate in sorting and analyzing the Assessment, each assessment item is classified by the letter designation shown in () above. The Assessment Team also distinguished varying levels of criticality of each assessment items according to FCPA's standard ranking systems which classify Grade, Priority, and Category. These classifications are meant to help prioritize fiscal impacts and are outlined on the following page.

6.2.1 GRADING/PRIORITY

- **Grading Standard F / Priority 1 - Currently Critical**

Conditions in this category require immediate action by the end of the current fiscal year to:

- Correct a safety hazard
- Stop accelerated deterioration
- Return a facility/system to operational status

- **Grading Standard D / Priority 2 - Potentially Critical**

Conditions in this category, if not corrected expeditiously, will become critical soon. Situations within this category include:

- Correct a safety hazard
- Stop accelerated deterioration
- Return a facility/system to operational status

- **Grading Standard C / Priority 3 - Necessary, But Not Yet Critical**

Conditions in this category require appropriate attention to preclude predictable deterioration and associated damage or higher costs if deferred further.

- **Grading Standard B / Priority 4 - Recommended**

Conditions in this category include items that represent a sensible improvement to existing conditions. These are not required for the most basic functioning of the facility.

- **Grading Standard A / Priority 5 - Appearance**

Conditions in this category include finishes that have deteriorated and are required to maintain the required aesthetic standards.

- **Grading Standard A / Priority 6 - Does Not Comply With Current Codes - “Grandfathered”**

Conditions in this category include items that do not conform to existing codes, but are “grandfathered” in their conditions. However, should substantial work be undertaken in adjacent areas, certain existing conditions may require correction to comply with current codes and standards.

6.2.2 MAINTENANCE CATEGORY

- **Category 1 - Scheduled Maintenance**

Maintenance that is planned and performed on a routine basis to maintain and preserve the condition or equipment.

- **Category 2 - Deferred Maintenance**

Maintenance that was not performed when it was scheduled, or is past its useful life, resulting in immediate repair or replacement.

- **Category 3 - Capital Renewal**

Planned replacement of a building system that has reached the end of its useful life.

- **Category 4 - Energy & Sustainability**

When the repair or replacement of equipment or system is recommended to improve energy efficiency and sustainability performance.



- **Category 5 - Security & Safety**

When a condition, equipment, or system requires replacement due to a security and/or safety risk or requirement.

6.2.3 CODE ASSESSMENT

INTERNATIONAL BUILDING CODE (IBC) / VIRGINIA UNIFORM STATEWIDE BUILDING CODE (VUSBC)

Many of the RECenters were constructed under the requirements of the BOCA National Building Code. The BOCA code has been superseded by the Virginia Uniform Statewide Building Code (based on the International Building Code), which is currently in place for all new construction in Fairfax County, Virginia. If a facility is expanded, full compliance with the current edition of the IBC/VUSBC as adopted by Fairfax County, Virginia will be required. Significant renovation efforts may also trigger compliance with the current edition of the IBC/VUSBC.

INTERNATIONAL ENERGY CONSERVATION CODE (IECC) / VIRGINIA ENERGY CONSERVATION CODE (VECC)

Many of the RECenter building envelopes and original mechanical and electrical systems predate any known energy codes. Any alterations to building envelopes or mechanical, or electrical systems that occurred following the year 2000 would have required compliance with the then-current edition of the International Energy Conservation Code (IECC) as adopted by Fairfax County, Virginia. Any future modifications to building envelopes or mechanical, or electrical systems are required to comply with the current edition of the Virginia Energy Conservation Code.

AMERICANS WITH DISABILITIES ACT (ADA)

Many of the RECenters were constructed prior to the enactment of the Americans with Disabilities Act in 1990. A new version of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) was enacted in 2010. Although new versions of accessibility codes generally provide “safe harbor” protection for elements that were designed and constructed as accessible under previous accessibility codes, the 2010 ADAAG includes specific requirements for recreational facilities which have no “safe harbor” provisions, in effect requiring immediate compliance. Examples of such compliance requirements include accessibility to swimming pools, support facilities for swimming pools, and fitness areas. FCPA maintains an ongoing commitment to making their parks and facilities accessible, and many accessibility-related improvements have been undertaken throughout the facility.

LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED)

Fairfax County adopted LEED Silver objectives for all new and renovated County facilities greater than 10,000 square feet in 2008. The design and construction of the many of the RECenters precludes compliance with this objective.

Although some initiatives have been taken to improve energy efficiency and environmental performance, many of the RECenters are outdated with respect to energy conservation. Any future renovation or expansion efforts should include a thorough energy analysis and energy model to evaluate the extent of requirements for energy conservation upgrades.

The following sections provide a summary of the recommended improvements for the RECenters that were evaluated. Detail of the improvements can be found in the Appendix of the report.

6.3 AUDREY MOORE RECENTER ASSESSMENT

Audrey Moore RECenter is located at 8100 Braddock Road in Annandale. The facility opened in 1977 and was the first recreation center constructed by the Fairfax County Park Authority. Significant renovations took place to the facility in 1996 (creating a new fitness room) and 2001 (locker room and pool areas), with several smaller renovation projects and system replacements undertaken over the years. The facility is approximately 76,100 square feet, and includes a 50-meter x 25-yard pool with diving boards, spectator seating, and outdoor sundeck; locker rooms; racquetball/squash courts; gymnasium; dance room; pottery lab with kiln; 3 multi-purpose rooms; senior center; and fitness center. The facility is located within Wakefield Park, a 294-acre site that includes numerous trails, basketball courts, tennis courts, sport fields, playgrounds, and a skate park.

6.3.1 COST SUMMARY OF IMPROVEMENTS

The following table summarizes the cost summary of improvements for the Audrey Moore RECenter.

Audrey Moore RECenter Facility Assessment Improvement Plan		
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 10 years</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$315,000	\$315,000
BUILDING ENVELOPE	\$1,340,000	\$1,340,000
INTERIOR FINISHES	\$1,295,000	\$1,295,000
MECHANICAL	\$2,120,000	\$2,120,000
ELECTRICAL	\$395,000	\$395,000
PLUMBING	\$287,500	\$0
FIRE PROTECTION	\$25,000	\$75,000
AQUATICS	\$360,000	\$5,360,000
TOTAL	\$6,137,500	\$11,215,000



6.4 CUB RUN RECENTER ASSESSMENT

Cub Run RECenter is located at 4630 Stonecroft Boulevard in Chantilly. The facility opened in 2005 and is the newest facility in the FCPA system. The facility is approximately 65,000 square feet, and includes a 25-yard x 25-yard pool with diving boards and lift, spectator seating, leisure pool with zero-depth entry, play structure, and two large body slides; spa; locker rooms; multipurpose rooms; aerobics/dance rooms; and large fitness center. The facility was designed to be expandable to incorporate a second competition pool. The facility is located on a large site adjacent to a school property.

6.4.1 COST SUMMARY OF IMPROVEMENTS

The following table summarizes the cost summary of improvements for the Cub Run RECenter.

Cub Run RECenter Facility Assessment Improvement Plan		
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 10 years</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$225,050	\$225,000
BUILDING ENVELOPE	\$55,060	\$355,000
INTERIOR FINISHES	\$65,305	\$115,250
MECHANICAL	\$1,225,170	\$1,225,000
ELECTRICAL	\$300,030	\$0
PLUMBING	\$2,500	\$2,500
FIRE PROTECTION	\$10,000	\$10,000
AQUATICS	\$857,986	\$957,800
TOTAL	\$2,890,550	\$3,353,050

6.5 GEORGE WASHINGTON RECENTER ASSESSMENT

George Washington RECenter is located at 8426 Old Mount Vernon Road in Alexandria. The facility opened in 1988. Significant renovations took place to the facility in 2005 and 2006, during which the roof, HVAC, and pool dehumidification equipment were replaced. The facility is approximately 18,000 square feet, and includes a 25-yard x 25-yard pool with two diving boards, spa, spectator seating, and outdoor sundeck; locker rooms; multi-purpose/party room; and lobby which incorporates several pieces of fitness equipment. The facility is located on a wooded site adjacent to Riverside Elementary School.

6.5.1 COST SUMMARY OF IMPROVEMENTS

The following table summarizes the cost summary of improvements for the George Washington RECenter.

George Washington RECenter Facility Assessment Improvement Plan		
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 10 years</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$240,000	\$240,000
BUILDING ENVELOPE	\$445,000	\$445,000
INTERIOR FINISHES	\$295,250	\$295,250
MECHANICAL	\$965,000	\$1,140,000
ELECTRICAL	\$480,000	\$480,000
PLUMBING	\$322,500	\$325,000
FIRE PROTECTION	\$15,000	\$30,000
AQUATICS	\$160,000	\$220,000
TOTAL	\$2,892,750	\$3,115,250



6.6 LEE DISTRICT RECENTER ASSESSMENT

Lee District RECenter is located within the 139-acre Lee District Park in Franconia. The facility opened in 1980. Significant additions and renovations took place to the facility in 1988 (gymnasium, dance room, and weight room), 1997 (new roofs and HVAC), and 2004 (HVAC and locker rooms), with several smaller renovation projects and system replacements undertaken over the years. The facility is approximately 83,617 square feet, and includes a 50-meter x 25-yard pool with two one-meter diving boards, spectator seating, and outdoor sundeck; large gymnasium; locker rooms; racquetball/squash courts; dance room; multi-purpose rooms; and fitness center. Unique to this location among the nine RECenter facilities is a multiple classroom pre-school facility.

6.6.1 COST SUMMARY OF IMPROVEMENTS

The following table summarizes the cost summary of improvements for the Lee District RECenter.

Lee District RECenter Facility Assessment Improvement Plan		
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 10 years</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$470,000	\$470,000
BUILDING ENVELOPE	\$385,000	\$385,000
INTERIOR FINISHES	\$975,000	\$1,050,000
MECHANICAL	\$5,330,000	\$7,180,000
ELECTRICAL	\$1,145,000	\$1,145,000
PLUMBING	\$527,500	\$555,000
FIRE PROTECTION	\$15,000	\$30,000
AQUATICS	\$255,000	\$5,280,000
TOTAL	\$9,102,500	\$16,095,000

6.7 OAK MARR RECENTER ASSESSMENT

Oak Marr RECenter is located at 3200 Jermantown Road in Oakton. The facility opened in 1988, and a major expansion and renovation project was recently completed in 2014. The facility is approximately 68,570 square feet, and includes a 50-meter x 25-yard pool with diving boards and ramp, spectator seating, and outdoor sundeck; spa; locker rooms; racquetball/squash courts; multipurpose rooms; aerobics/dance rooms; childcare room; and fitness center. The facility is located within a 59-acre park site that includes soccer fields, a miniature golf course, and driving range.

6.7.1 COST SUMMARY OF IMPROVEMENTS

The following table summarizes the cost summary of improvements for the Oak Marr RECenter.

Oak Marr RECenter Facility Assessment Improvement Plan		
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 10 years</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$0	\$0
BUILDING ENVELOPE	\$205,000	\$755,000
INTERIOR FINISHES	\$45,000	\$45,000
MECHANICAL	\$7,225,000	\$7,225,000
ELECTRICAL	\$895,000	\$895,000
PLUMBING	\$505,000	\$507,500
FIRE PROTECTION	\$20,000	\$40,000
AQUATICS	\$568,500	\$793,500
TOTAL	\$9,463,500	\$10,261,000



6.8 PROVIDENCE RECENTER ASSESSMENT

Providence RECenter is located at 7525 Marc Drive in Falls Church. The facility opened in 1982. Significant additions and renovations took place to the facility in 1987 (several multi-purpose rooms and dance room), 1998 (fitness center), and 2002 (locker rooms), with several smaller renovation projects and system replacements undertaken over the years. The facility is approximately 63,000 square feet, and includes a 25-meter x 25-yard pool with two one-meter diving boards, spectator seating, and outdoor sundeck; locker rooms; racquetball/squash courts; dance room; multi-purpose rooms; and fitness center. The facility is located within Providence Park, a 13-acre site.

6.8.1 COST SUMMARY OF IMPROVEMENTS

The following table summarizes the cost summary of improvements for the Providence RECenter.

Providence RECenter Facility Assessment Improvement Plan		
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 10 years</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$230,000	\$230,000
BUILDING ENVELOPE	\$550,000	\$850,000
INTERIOR FINISHES	\$865,000	\$980,000
MECHANICAL	\$0	\$1,155,000
ELECTRICAL	\$450,000	\$450,000
PLUMBING	\$0	\$92,500
FIRE PROTECTION	\$15,000	\$30,000
AQUATICS	\$3,735,000	\$3,785,000
TOTAL	\$7,090,000	\$7,572,500

6.9 SOUTH RUN RECENTER ASSESSMENT

South Run RECenter is located at 7550 Reservation Drive in Springfield. The facility opened in 1988. Significant renovations and additions took place to the facility in 2008, including a large fitness center addition with several smaller renovation projects and system replacements undertaken over the years. The facility is approximately 41,450 square feet, and includes a 25-yard x 25-yard pool with diving boards and ramp, spectator seating, and outdoor sundeck; locker rooms; racquetball/squash courts; multipurpose rooms; aerobics/dance rooms; and fitness center. Adjacent to the facility is a 22,395 sf Field House which is used exclusively as an indoor turf venue. The facility is located within a 182-acre park site that includes numerous trails, soccer fields, baseball/softball fields, tennis courts, and outdoor basketball courts.

6.9.1 COST SUMMARY OF IMPROVEMENTS

The following table summarizes the cost summary of improvements for the South Run RECenter.

South Run RECenter Facility Assessment Improvement Plan		
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 10 years</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE IMPROVEMENTS	\$85,000	\$85,000
BUILDING ENVELOPE	\$580,000	\$580,000
INTERIOR FINISHES	\$435,500	\$723,500
MECHANICAL	\$565,000	\$565,000
ELECTRICAL	\$855,000	\$855,000
PLUMBING	\$214,500	\$219,000
FIRE PROTECTION	\$15,000	\$30,000
AQUATICS	\$275,000	\$330,000
TOTAL	\$3,025,000	\$3,387,500



6.10 SPRING HILL RECENTER ASSESSMENT

Spring Hill RECenter is located at 1239 Spring Hill Road in McLean. The facility opened in 1988, and a major expansion and renovation project was completed in 2015. The facility is approximately 75,000 square feet, and includes a 25-meter x 25-yard pool with diving boards and zero-depth entry, spectator seating, and outdoor sundeck; spa; locker rooms; racquetball/squash courts; multipurpose rooms; aerobics/dance rooms; childcare room; fitness center, and gymnasium with running track. The facility is located within a 46-acre park site that includes soccer fields, baseball fields, and a playground.

6.10.1 COST SUMMARY OF IMPROVEMENTS

The following table summarizes the cost summary of improvements for the Spring Hill RECenter.

Spring Hill RECenter Facility Assessment Improvement Plan		
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 10 years</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$40,000	\$40,000
BUILDING ENVELOPE	\$843,000	\$843,000
INTERIOR FINISHES	\$302,000	\$452,000
MECHANICAL	\$1,745,000	\$1,745,000
ELECTRICAL	\$620,000	\$620,000
PLUMBING	\$795,000	\$802,500
FIRE PROTECTION	\$15,000	\$30,000
AQUATICS	\$338,500	\$3,938,500
TOTAL	\$4,698,500	\$8,471,000

6.11 FACILITY ASSESSMENT COST SUMMARY

The following chart summarizes the lifecycle replacement costs of the facility assessment recommendations. Of significant note is that 71.4% of the total cost of improvements are recommended to occur within the next ten years, further underscoring the primary need to maintain FCPA's existing parks and recreation system.

FACILITY ASSESSMENT COST SUMMARY			
Facility	10 Year Improvement Total	20 Year Improvement Total	% of Total Cost within 10 Years
Audrey Moore	\$6,137,500	\$11,215,000	54.7%
Cub Run	\$2,890,550	\$3,353,050	86.2%
George Washington	\$2,892,750	\$3,115,250	92.9%
Lee District	\$9,102,500	\$16,095,000	56.6%
Oak Marr	\$9,463,500	\$10,261,000	92.2%
Providence	\$7,090,000	\$7,572,500	93.6%
South Run	\$3,025,000	\$3,387,500	89.3%
Spring Hill	\$4,698,500	\$8,471,000	55.5%
TOTAL	\$45,300,300	\$63,470,300	71.4%

Please Note: The above lifecycle replacement costs are included in the Capital Improvement Framework (CIF) in Chapter 11, however, are not reflective of all RECenter capital improvement funding. Additional funding is needed to address renovation or expansion of facilities to meet community need.



CHAPTER SEVEN QUALITATIVE COMMUNITY INPUT

A key consideration for creating a vision for parks and recreation in Fairfax County is to understand current community values, needs, and desires. The assessment of these values is accomplished by gathering information from stakeholder interviews and a series of focus groups and meetings, and testing and reinforcing those findings through a statistically valid survey. The following paragraphs summarize this process and resulting findings. A complete discussion of the qualitative community input can be found in Appendix E of the report.

7.1 METHODOLOGY

The qualitative data collected included several leadership workshops, focus groups, open houses, and community meetings.

- Twenty-seven (27) leadership interviews and five (5) stakeholder focus groups were conducted to be representative, but not exhaustive of interests affecting parks and recreation in Fairfax County. These sessions included:
 - Park Authority Board
 - County Administration, Board of Supervisors, Park Authority Leadership
 - Athletic Council, Affordable Housing Advocates, Trail Users, Active Older Adults
- Fairfax County Park Authority held an open house on October 2, 2014 to inform the Needs Assessment. Input was gathered via comment cards, sticky notes, dot exercises, and other notes responding to questions from display boards. The meeting was also used to advertise the website and to encourage use of the County's "meeting in a box" outreach tool.
- Fairfax County Park Authority staff and the Park Authority Board have provided input throughout the project.

7.2 KEY OUTCOMES DESIRED

Overall, qualitative input suggested a variety of desired results for the Needs Assessment.

- Strategies that doesn't assume that "one size fits all", but instead focuses on the unique and diverse needs of Fairfax County and its residents
- Consideration of new cost recovery mechanisms
- A strategy that balances recreation and environmental stewardship, as well as the funding of new purchases and funding for maintenance
- A plan that recognizes needs of the diversifying community, and the needs of the aging population
- A strategy for repurposing underutilized amenities
- A plan that will maximize the use of public-private partnerships
- A strategy that includes creative and flexible solutions
- A plan that embraces technology as a way to improve input-gathering around planning as well as dissemination of information about facilities, programs, and volunteer opportunities
- A strategy that will include new funding opportunities

7.3 KEY THEMES

Discussion with staff, community leaders and citizens revealed the following key themes related to parks and recreation in FCPA.

- **Recreation:** There are many recreational facilities and programs that people value and use frequently. People believe that FCPA's facilities and programs add value to the quality of life in their community. Still, public input indicates the need for both improvements to existing facilities, and for new facilities.
- **Natural and Cultural Resources:** Though there was a greater emphasis on recreational facilities and programs than natural and cultural resources, people value FCPA's conservation efforts and educational programs. They expressed a desire to see expansion of existing successful programs, more programming related to historic/cultural resources, and enhancement of natural resources programs.
- **Fiscal Responsibility:** Generally, people - especially the decision-makers - believed that FCPA is working well with the limited resources that they have. People would like to see more funding spent on maintenance. Fees were one area that people would like to see adjusted. There were also several suggestions for how to address funding shortages.
- **Operations/Staffing:** People generally spoke highly of staff as knowledgeable and proficient with outreach. However, among areas they would like to see improved, marketing and outreach stand out, especially in terms of the desire for an expanded use of technology.
- **Planning/Long-Term Vision:** People believe that FCPA has the trust of the public, which is important as they move ahead with long-term plans. There were some concerns about the scope of planning that FCPA must take on, as well as the time frames for implementation of plans. People expressed many needs and opportunities that they would like FCPA to address or incorporate as they move forward with defining and executing a long-term vision.

7.4 SUMMARY

A summary of the qualitative input received during focus groups, stakeholder interviews and public meetings is as follows:

- People utilize and appreciate the variety of facilities, programs, and activities that FCPA provides and maintains.
- There are many recreational facilities and programs that people value and use frequently. People believe that FCPA's facilities and programs add value to the quality of life in their community. Still, public input indicates the need for both improvements to existing facilities, and for new facilities.
- Though there is a significant interest in recreational facilities and programs, people value FCPA's conservation efforts and educational programs. A desire to expand existing successful programs, offer more programming related to historic/cultural resources, and the enhancement of natural resources programs was expressed.
- Generally, people - especially the decision-makers - believe that FCPA is working well with the limited resources that they have. People would like to see more funding spent on maintenance. Fees were one area that people would like to see adjusted. There were also several suggestions for how to address funding shortages.



- People generally spoke highly of staff as knowledgeable and proficient with outreach. However, among areas they would like to see improved, marketing and outreach stand out, especially in terms of the desire for an expanded use of technology.
- People believe that FCPA has the trust of the public, which is important as they move ahead with long-term plans. There were some concerns about the scope of planning that FCPA must take on, as well as the time frames for implementation of plans. People expressed many needs and opportunities that they would like FCPA to address or incorporate as they move forward with defining and executing a long-term vision.

Using a park system core element framework that will be utilized in the remainder of the report, the following tables summarizes the qualitative input received during the Needs Assessment project:

PARK SYSTEM ELEMENT	QUALITATIVE INPUT SUMMARY	
	Qualitative Input Value Index	Opportunities Identified for Improvement
Local Parks	Highly Valued	Yes
Playgrounds	Highly Valued	Yes
Courts	Neutral	No
Neighborhood Skatepark	Neutral	No
District/Countywide Parks	Highly Valued	Yes
RECenters	Highly Valued	Yes
Rectangle Fields	Highly Valued	Yes
Youth Diamond Fields 60'	Highly Valued	Yes
Youth Diamond Fields 65'	Highly Valued	Yes
Adult Diamond Fields 60'	Highly Valued	Yes
Adult Diamond Fields 90'	Highly Valued	Yes
RECenters (Aquatics/Fitness)	Highly Valued	Yes
Indoor Gymnasiums	Valued	No
Golf	Valued	No
Outdoor Family Aquatics	Highly Valued	No
Waterfront Parks	Highly Valued	No
Equestrian	Highly Valued	Yes
Trails	Highly Valued	Yes
County Skateparks	Neutral	No
Resource Based Parks	Highly Valued	Yes
Horticulture Parks	Highly Valued	Yes
Historic Sites	Highly Valued	Yes
Nature Centers	Highly Valued	Yes

CHAPTER EIGHT – COMMUNITY SURVEY

8.1 METHODOLOGY

Leisure Vision/ETC Institute, a market research firm, conducted a Needs Assessment Citizen Survey for the Fairfax County Park Authority during the months of March through June of 2015 to help determine parks and recreation priorities for the community. The survey was developed in unison with the Park Authority to understand important park issues and the value of parks and recreation services to Fairfax County citizens. Leisure Vision worked directly with representatives to develop survey questions regarding important community park needs. Questions on the survey included need and use of a full range of parks, facilities and programs and how well needs are met and preferences for actions and resource allocation.

The goal was to complete a total of 4,000 surveys within the Park Authority’s fourteen (14) Planning Districts. The survey was mailed to a random sample of 35,000 households in Fairfax County. An option to complete the survey online and in Spanish was also available to residents who had that preference. A total of 4,665 households completed the survey, including 435 by online and 4225 by mail, which far exceeded the goal of 4,000. The results for the sample of 4,665 households have a 95% level of confidence with a precision rate of at least +/- 1.4%.

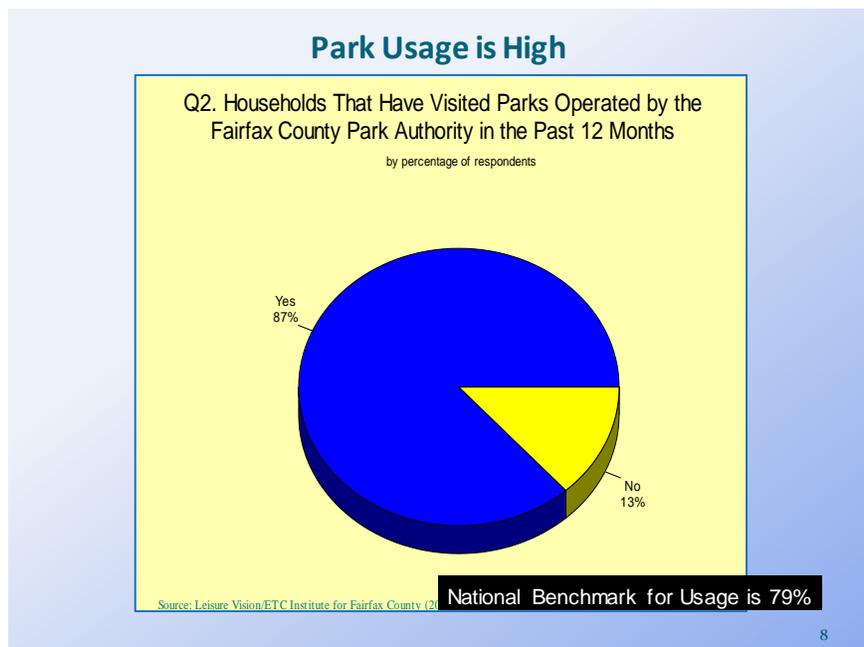
When looking at the age distribution in Fairfax County, survey results looked to be skewed slightly toward older adults, creating an over representation of the 55 and older segment of the population. Leisure Vision/ETC Institute applied weighting techniques in order to create a more evenly distributed data set. By comparing ages of survey respondents to the target population, Leisure Vision/ETC Institute was able to balance out the data and achieved results that are aligned with population characteristics.

8.2 KEY FINDINGS

The following summarizes the key findings of the statistically-valid survey results. The full report can be found in Appendix F of the report.

8.2.1 PARK UTILIZATION

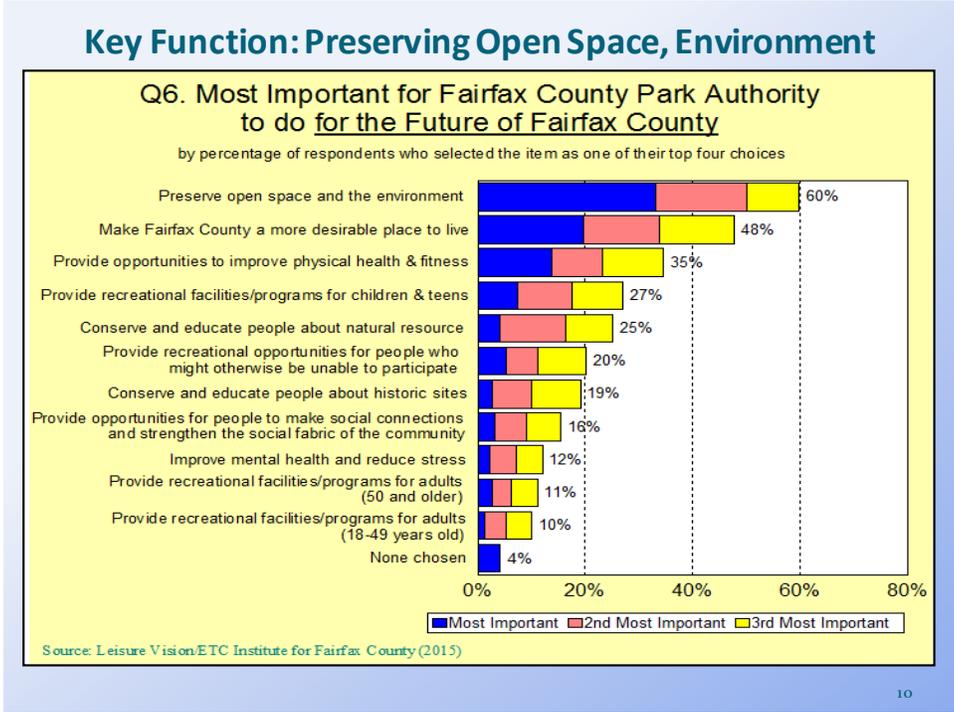
Of the 4,665 respondents, 87% indicated they had visited a park operated by the Fairfax County Park Authority over the past 12 months. Usage has increased by 9% over the last eight years, adding wear and tear and strain to the system.



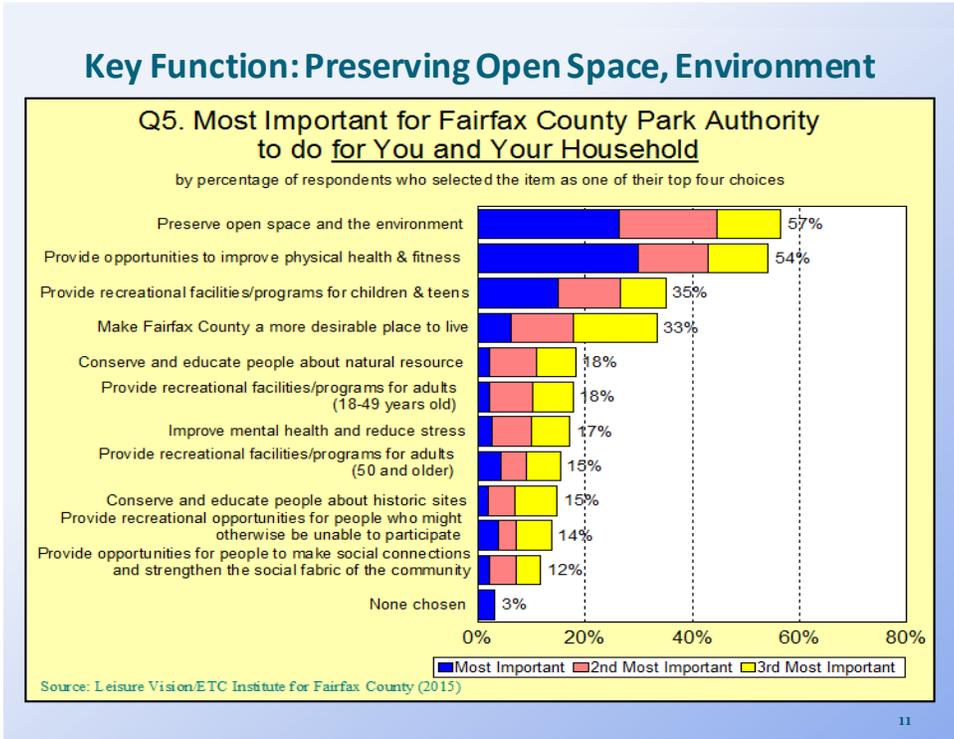


8.2.2 KEY FUNCTION: PRESERVING OPEN SPACE, ENVIRONMENT

When asked to indicate the top three most important statements from a list, 60% of respondents indicated that preserving open space and the environment is most important to the future of Fairfax County.

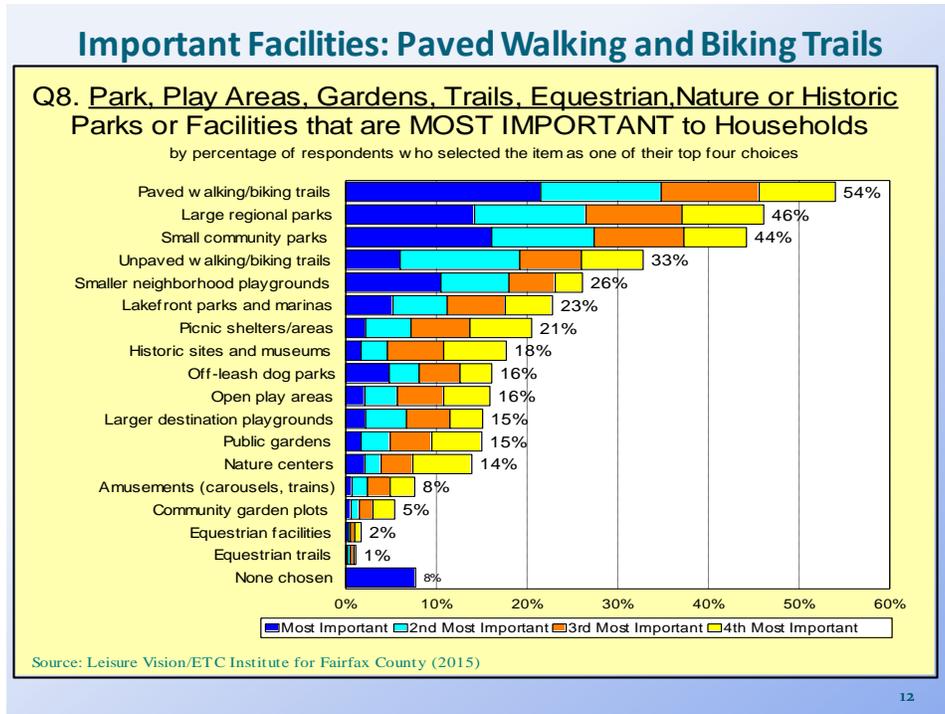


Additionally, 57% indicated that preserving open space and the environment is most important to their household.

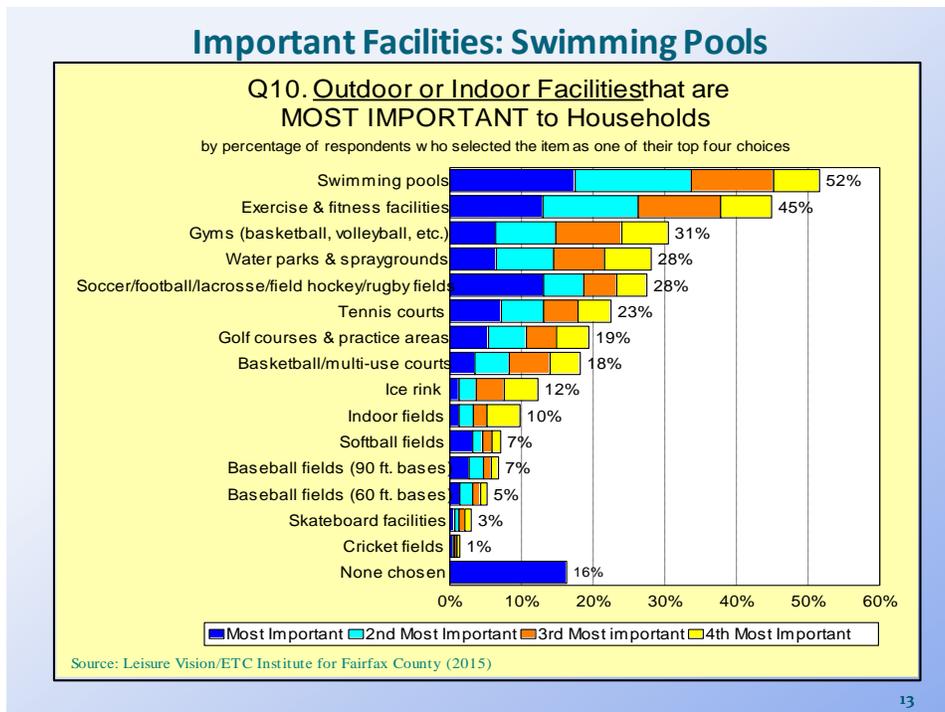


8.2.3 IMPORTANT FACILITIES

Based on the percentage of respondents' top four most important parks and facilities, 54% indicated that paved walking and biking trails is most important to their household.



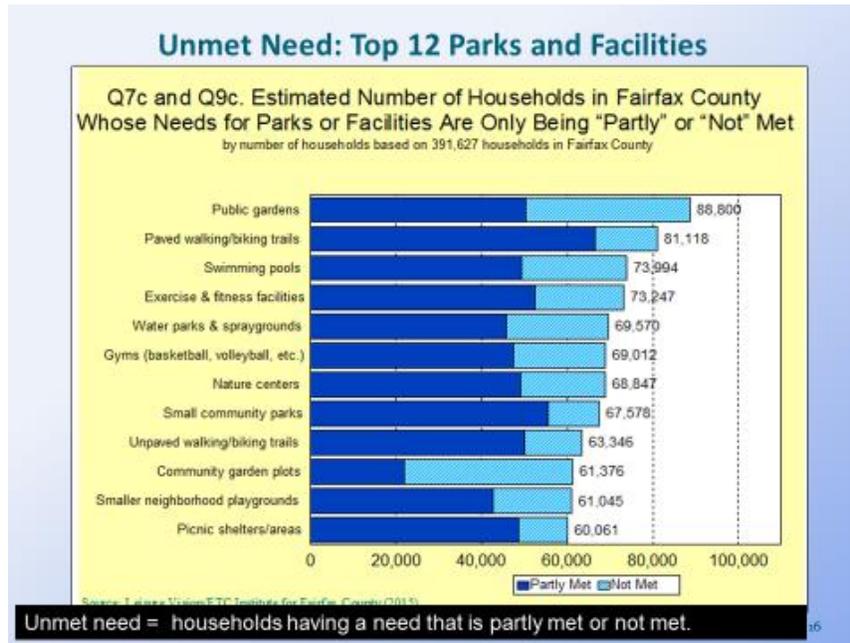
When asked about outdoor or indoor facilities that are important to their household, 52% indicated that they have a need for swimming pools.





8.2.4 UNMET NEED FOR FACILITIES

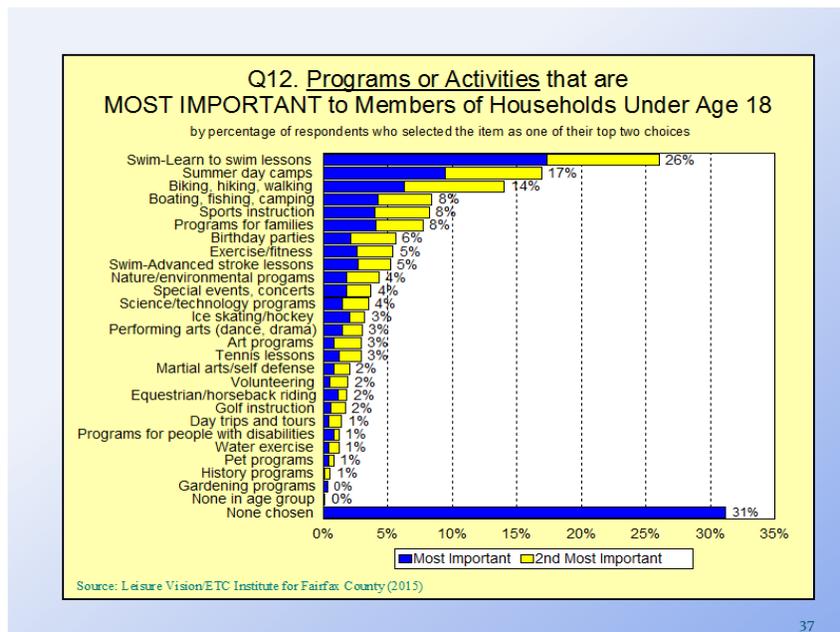
Survey results indicate that 87,000 households (or 23% of the County) have significant unmet needs for public gardens, while 81,118 (or 21%) have high unmet need for paved walking/biking trails and 73,994 (or 19%) of have great unmet need for swimming pools.



8.2.5 IMPORTANT PROGRAMS BY AGE GROUP

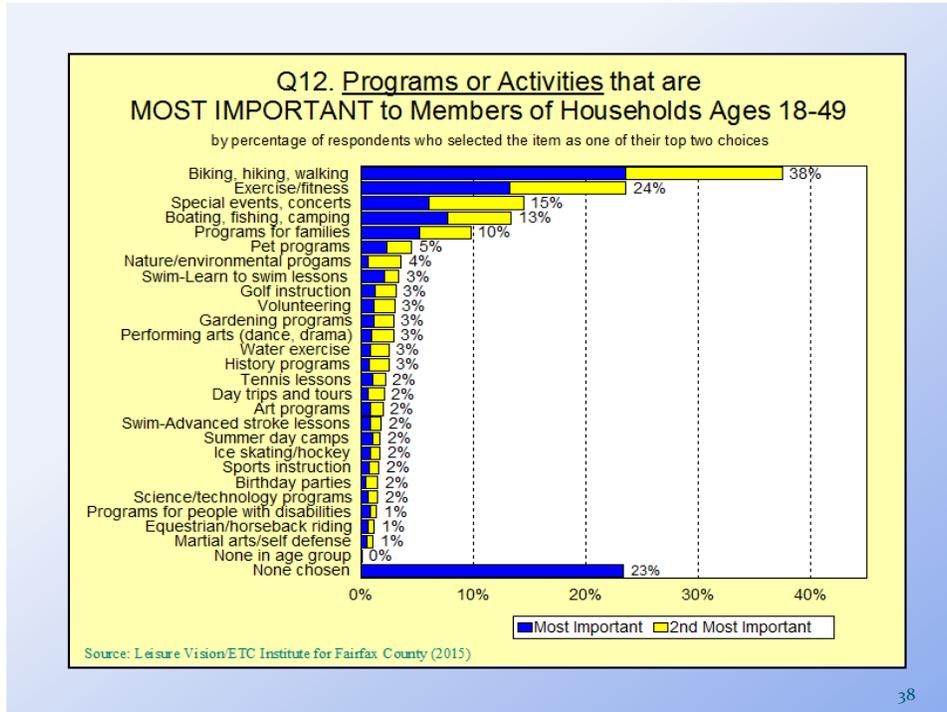
UNDER AGE 18

Based on the percentage of respondent households with children under age 18, 26% indicated swim lessons as the most important to their household.



AGES 18 TO 49

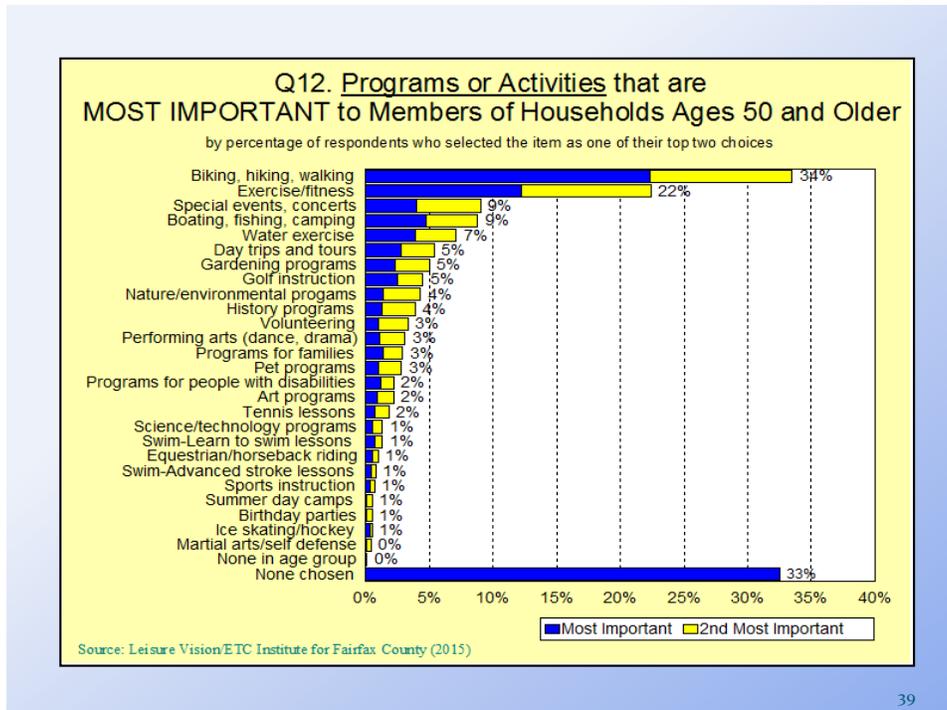
Based on the percentage of respondent households with members ages 18 to 49, 38% indicated biking, hiking, and walking as the most important program or activity for their household.



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AGES 50 AND OLDER

Based on the percentage of respondent households with members ages 50 and older top two choices, 34% indicated biking, hiking, and walking as the two most important to their household.

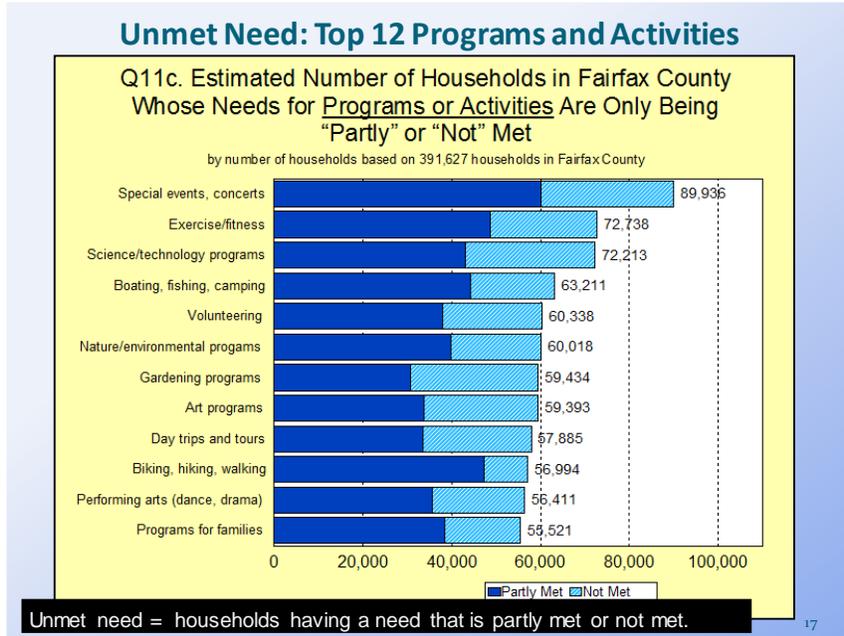


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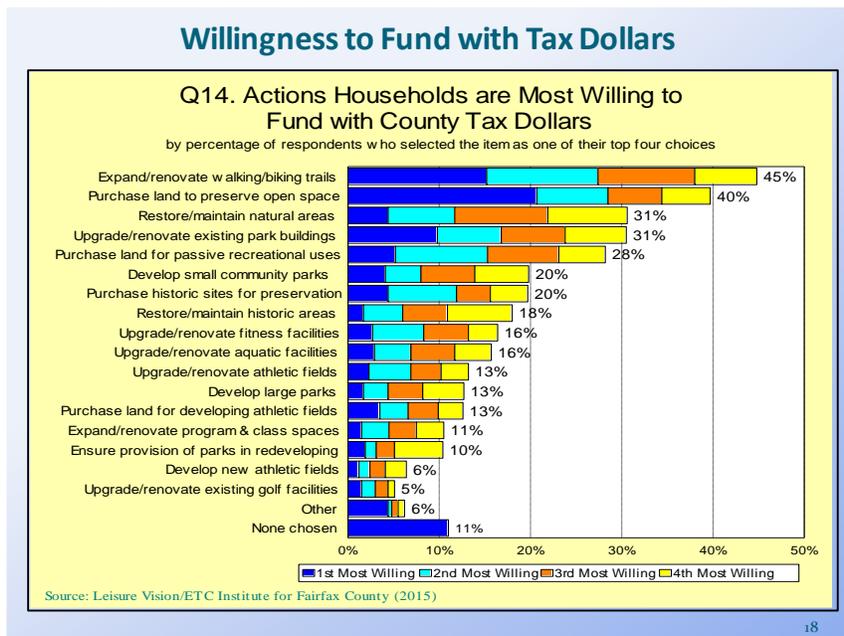
8.2.6 UNMET NEED FOR PROGRAMS AND SERVICES

Based on the survey analysis, 936 (or 23%) of households have significant unmet needs for special events and 72,738 (or 19%) of households have high unmet needs for fitness and exercise programs, while 72,213 (or 18%) have high unmet needs for science/technology programs.



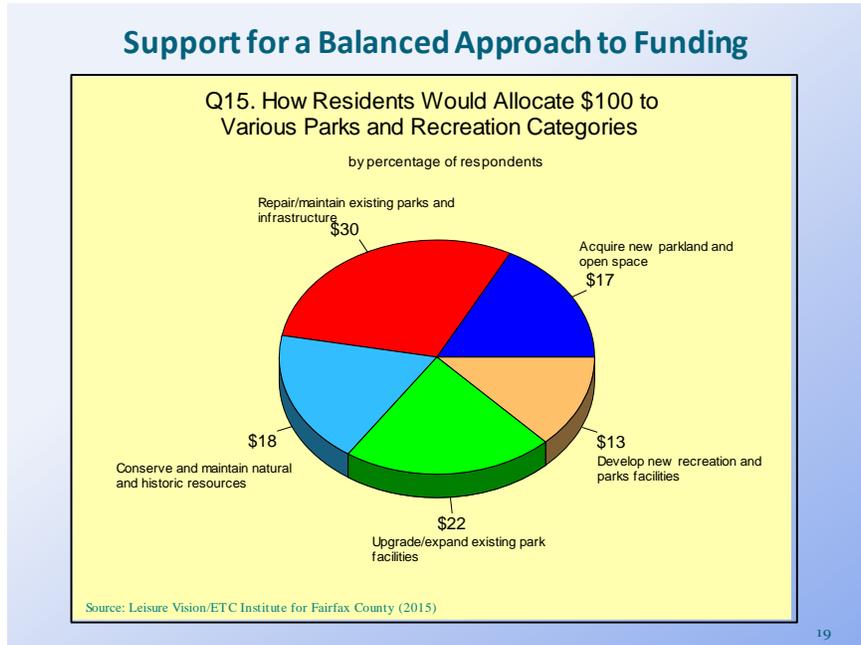
8.2.7 SUPPORT AND FUNDING FOR PARKS AND RECREATION SYSTEM

Based on the sum of respondents' top four most willing actions, 45% indicated they would be willing to expand/renovate walking/biking trails and connect existing trails with county tax dollars. Other actions that households are most willing to fund with tax dollars include: purchasing land to preserve open space and natural areas (40%), and upgrading/renovating existing park buildings and facilities (31%).



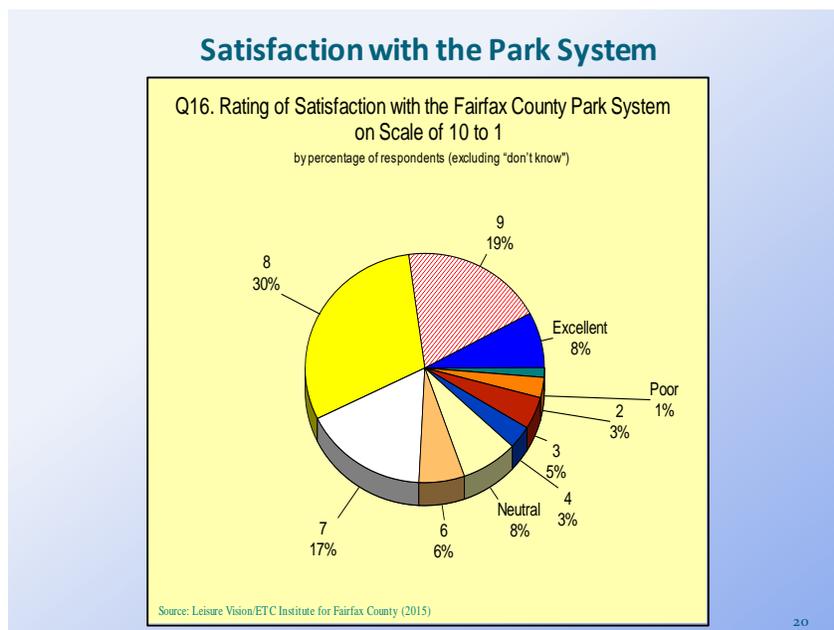
8.2.8 ALLOCATION OF FUNDS

In the survey, residents were given the opportunity to allocate \$100 to various categories. Results indicate that households would spend the most money (\$30) to repair/maintain existing parks and infrastructure. Other allocations of funds were: \$22 to upgrade/expand existing park facilities, \$18 to repair/maintain existing parks and infrastructure, and \$18 to conserve and maintain natural and historic resources.



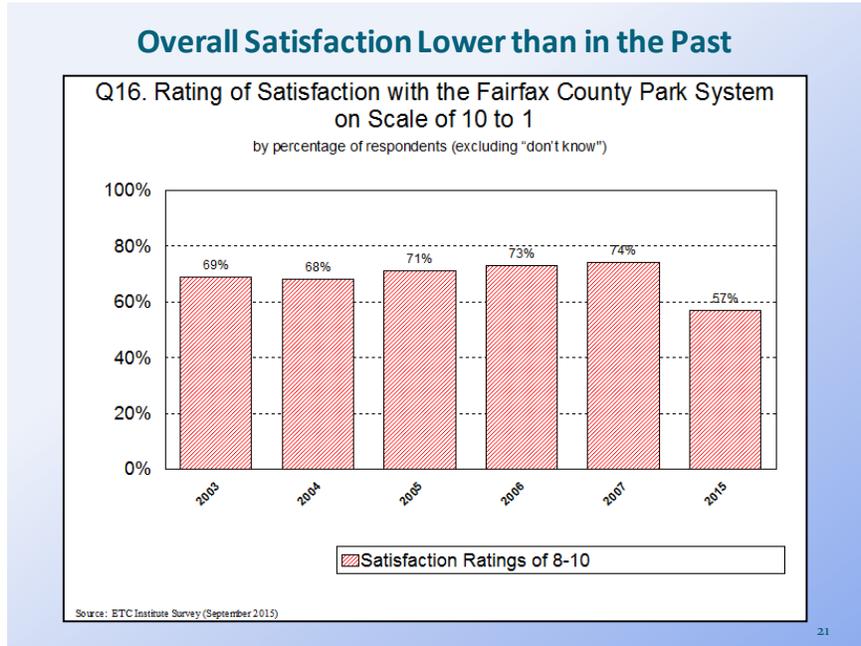
8.2.9 SATISFACTION WITH PARK SYSTEM

Out of all respondents, 57% rated their level of satisfaction with the park system as an 8 or higher on a 10 point scale. Other ratings include: 4-7 (34%), and 1-3 (9%).



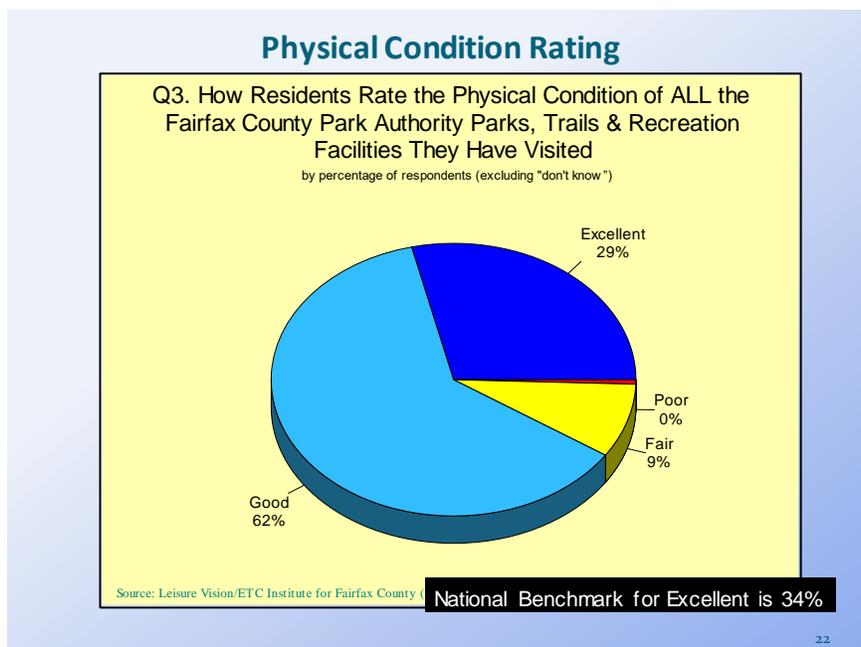


Though 57% rated their level of satisfaction with the park system as an 8 or higher on a 10 point scale, this represents a significant decrease from eight years ago and high levels of satisfaction are lower than they have been at any point over the last twelve years.



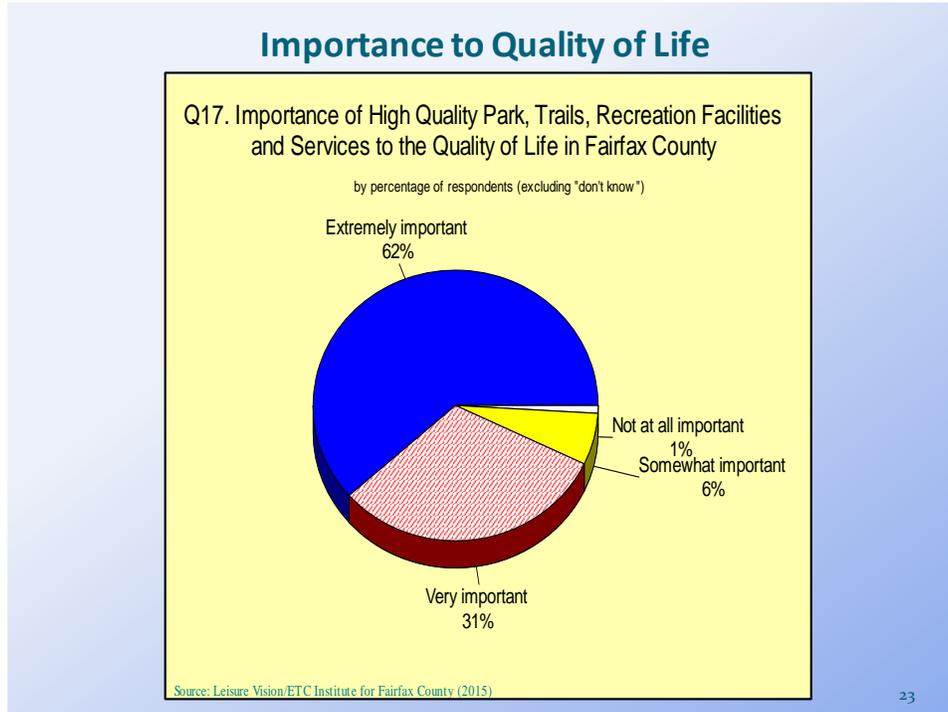
8.2.10 PHYSICAL CONDITION

Of all respondents, 29% rated the physical condition of parks, trails and recreation facilities as excellent, which is below the national benchmark of 34%. Other ratings include: good (62%), and fair (9%).

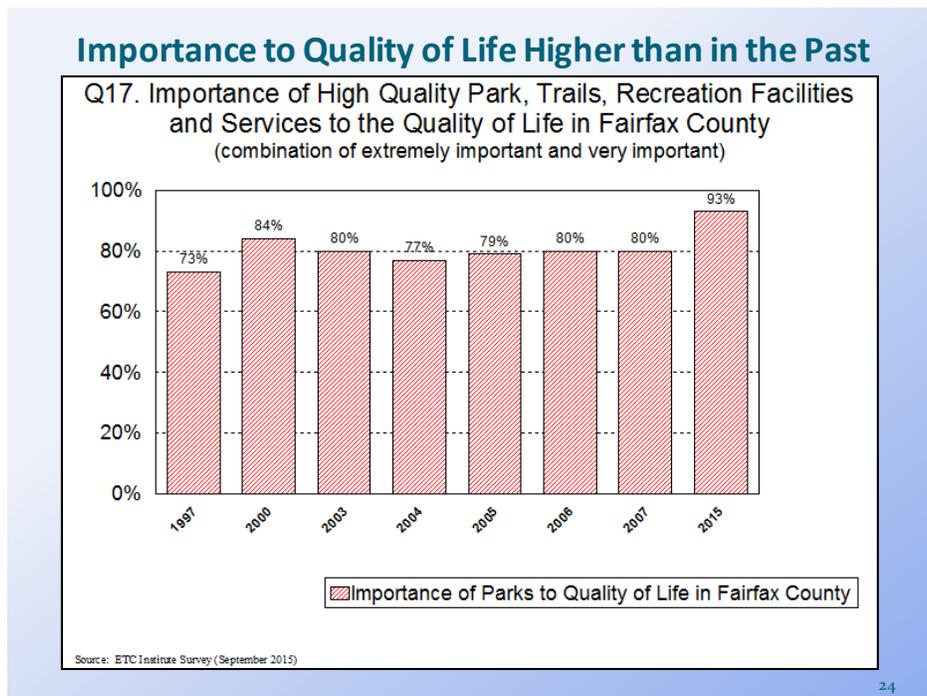


8.2.11 IMPORTANCE TO QUALITY OF LIFE

More than half of the respondents (62%) indicated that high quality parks, trails, recreation facilities and services are extremely important to the quality of life in Fairfax County. Other ratings of importance are: very important (31%), somewhat important (6%), and not at all important (1%).



At no point over the last twelve years has Fairfax County residents valued FCPA’s parks system more than do today, with 93% of respondents indicating that the park system is extremely or very important to quality of life in the County.

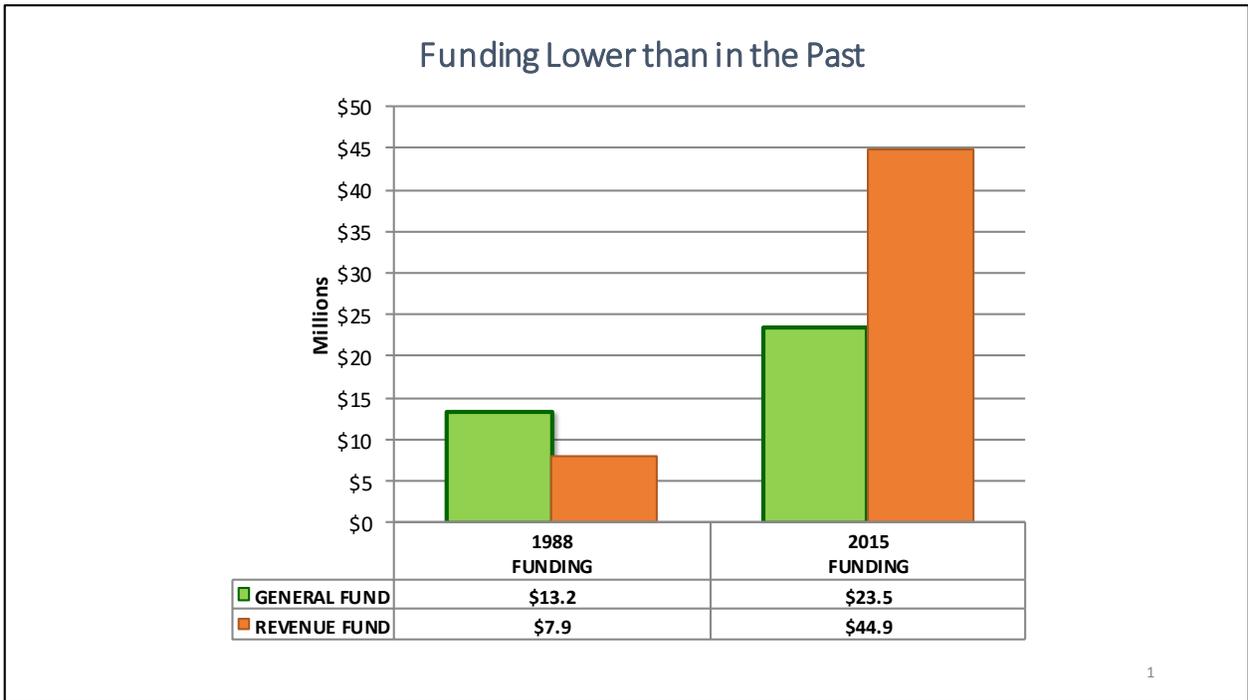




8.3 SUMMARY

The following summarizes the key themes derived from the results of the statistically-valid survey.

- Usage of parks, recreation facilities, and trails is high.
- Importance of the parks system to quality of life is very high at 93% (national average is 70%) and higher than at any point over the last twelve years.
- Preserving open space and environment is most important to the future of Fairfax County.
- Importance of programs vary based on age group.
- Fairfax County residents highly value community special events.
- Unmet needs exist, and are relatively equal for facilities and programs as a percentage of need.
- Support for upgrading and renovating the existing system far outweighs support for constructing new parks or facilities that would serve residents.
- Satisfaction is high with the condition and quality of parks, trails, and facilities, though it is lower than at any point over the last twelve years.
- Physical condition ratings of “excellent” are below that of the national benchmark.
- A direct correlation can be drawn between lower satisfaction and condition ratings and funding. As indicated in the chart below, funding for FCPA as a percentage of the County General Fund has steadily declined in the last twenty-five years. As the system has matured and expanded, less funding has been made available for the maintenance and management of parks, trails and recreation facilities.



CHAPTER NINE – COMMUNITY NEEDS ANALYSIS

For Fairfax County, it is critical to understand the needs of the community in order to provide offerings that are focused on a mix of traditional and emerging activities, so as to serve the market while maintaining affordability. This section of the report summarizes the priorities for the Fairfax County Park Authority from which specific recommendations and strategies will be developed. Needs are identified by the consulting team based on industry best practices, public and stakeholder input, and previous analyses.

9.1 PRIORITIZED NEEDS RATINGS

Prioritizing needs provides FCPA with an objective tool for evaluating the priority that should be placed on parks and recreation investments. The priority needs rating (PNR) reflects the importance residents place on items (sum of top 3 choices) and the unmet needs (needs that are only being partly met or not met) for each facility/program relative to the facility/program that rated the highest overall. Since decisions related to future investments should consider both the level of unmet need (UNR) and the importance of facilities and programs (IR), the priority needs rating weights each of these components equally.

The PNR reflects the sum of the Unmet Needs Rating and the Importance Rating as shown in the equation below:

- $PNR = UNR + IR$

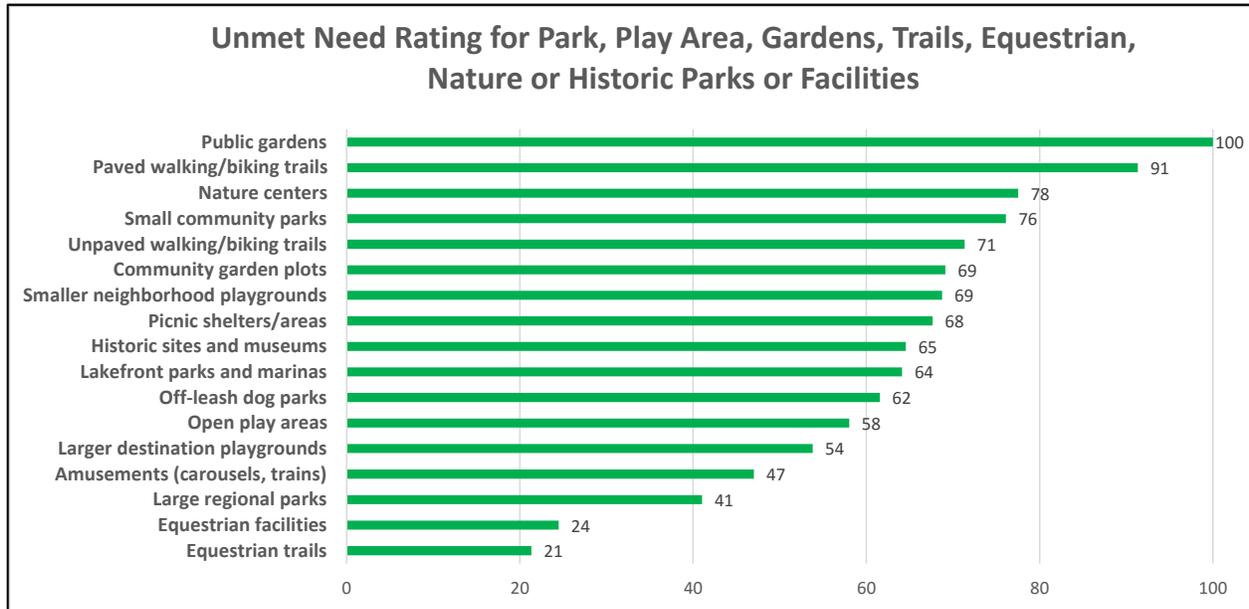
For example, suppose the Unmet Needs Rating for playgrounds is 26.5 (out of 100) and the Importance Rating for playgrounds is 52 (out of 100), the Priority Needs Rating for playgrounds would be 78.5 (out of 200).

Interpreting the PNR Scale:

- High Priority Areas are those with a PNR of at least 100. A rating of 100 or above generally indicates there is a relatively high level of unmet need and residents generally think it is



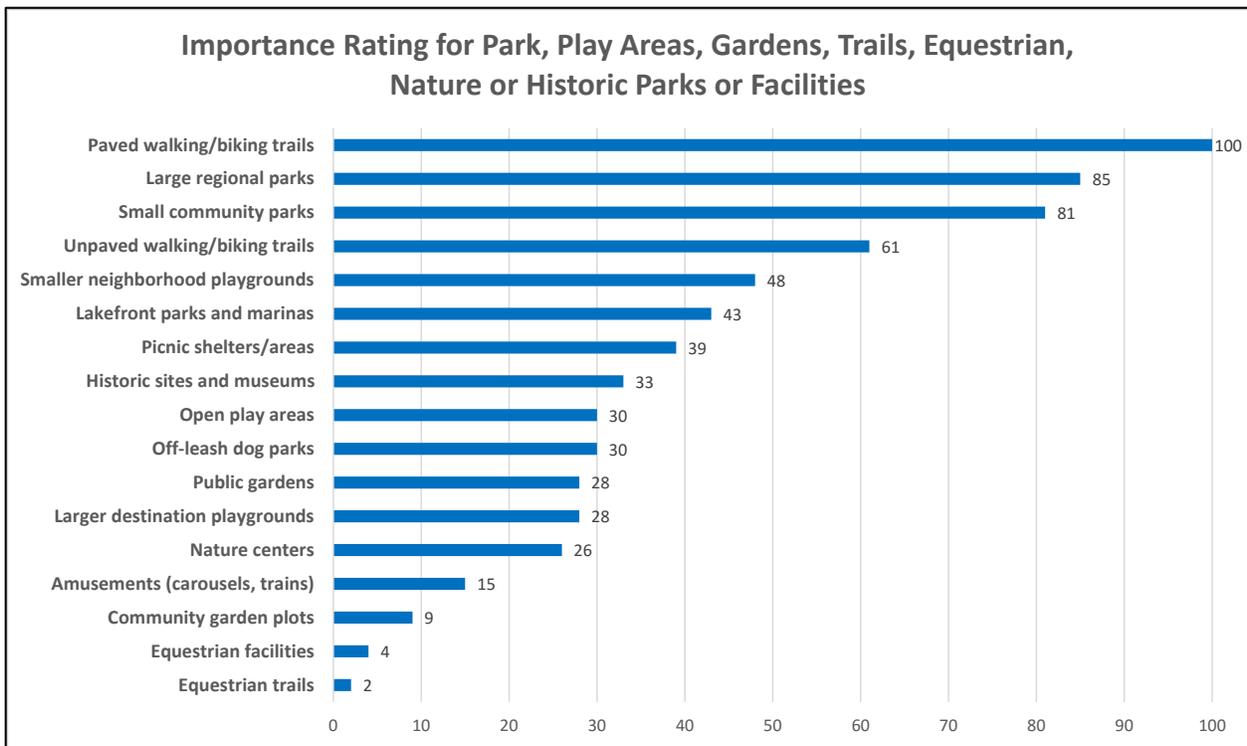
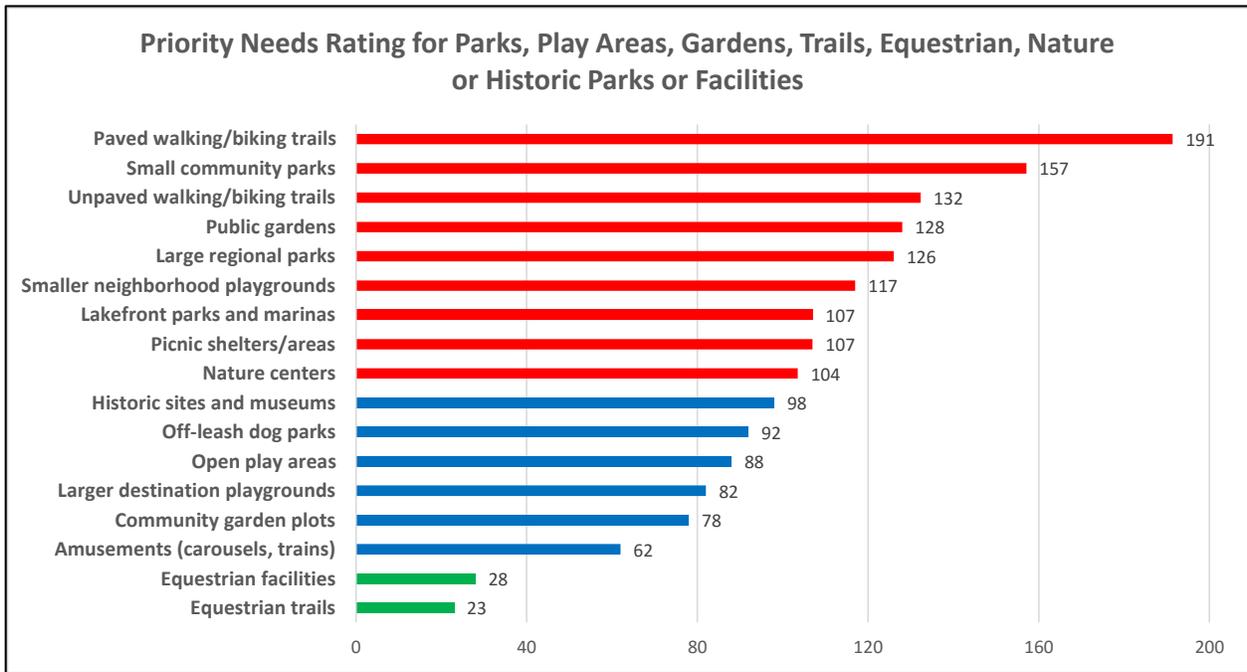
important to fund improvements in these areas. Improvements in this area are likely to have a positive impact on the greatest number of households.

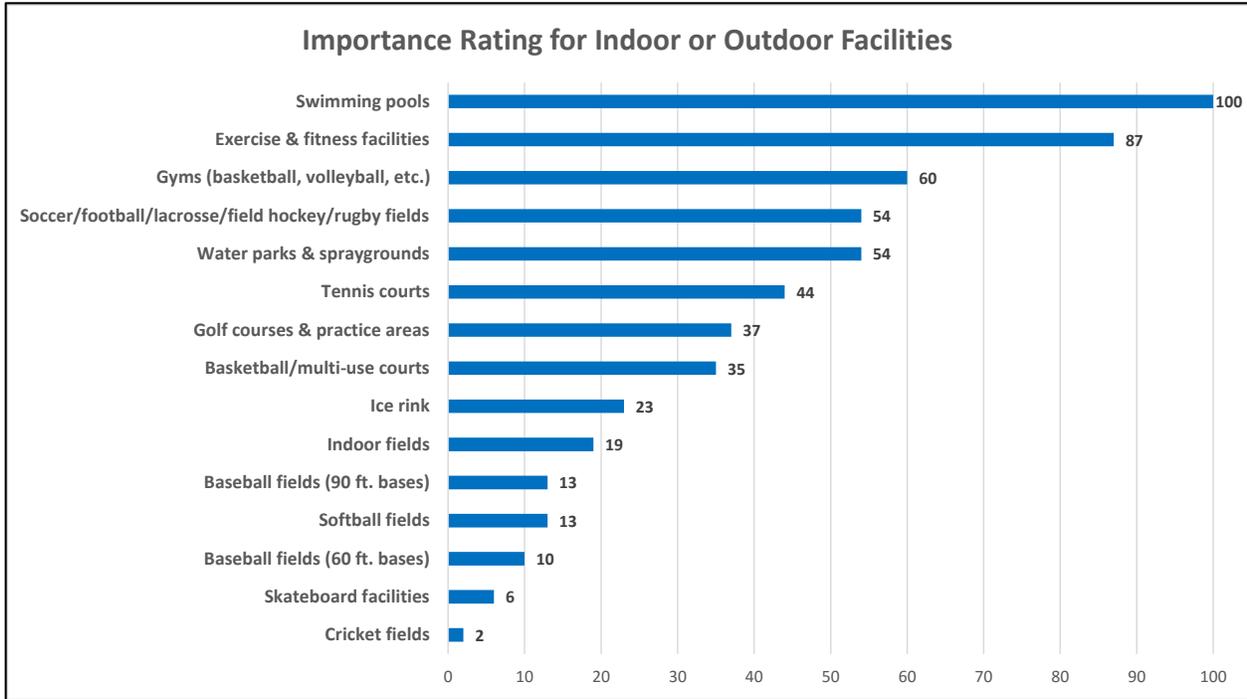


- Medium Priority Areas are those with a PNR of 50-99. A rating in this range generally indicates there is a medium to high level of unmet need or a significant percentage of residents generally think it is important to fund improvements in these areas.
- Low Priority Areas are those with a PNR below 50. A rating in this range generally indicates there is a relatively low level of unmet need and residents do not think it is important to fund improvements in these areas. Improvements may be warranted if the needs of very specialized populations are being targeted.

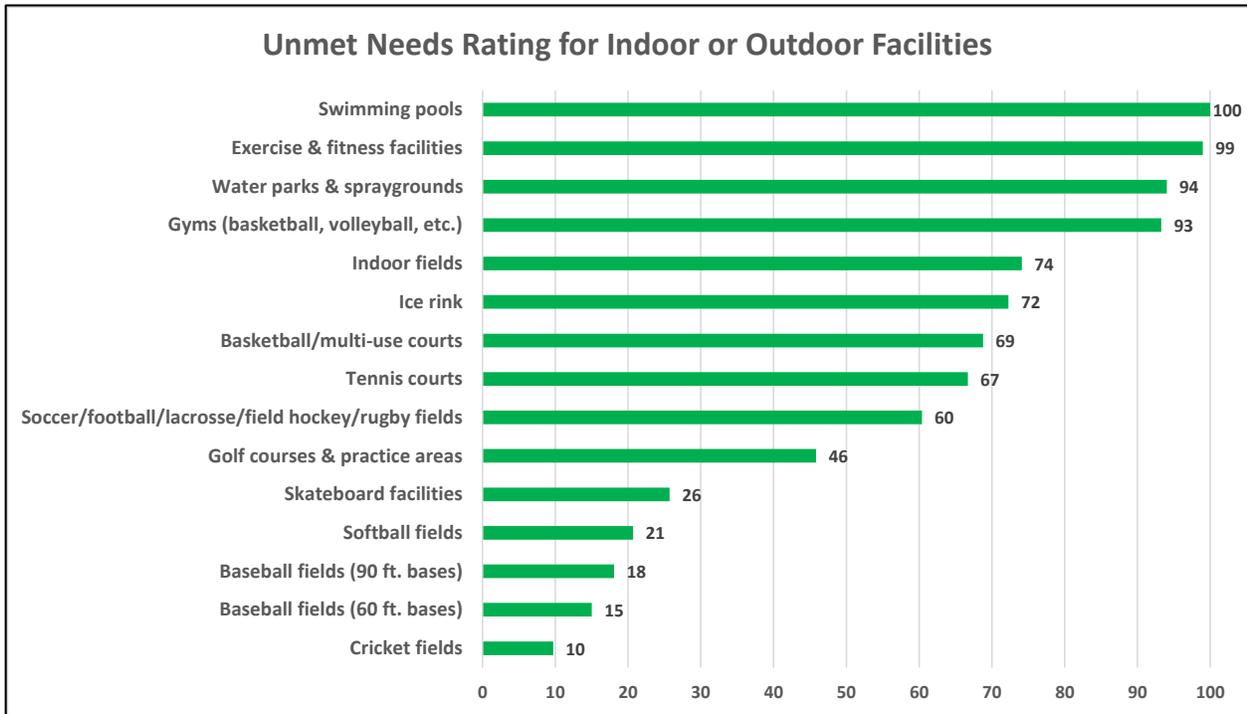
The following pages show the Unmet Needs Rating, Importance Rating, and Priority Needs Rating for various facilities and programs.

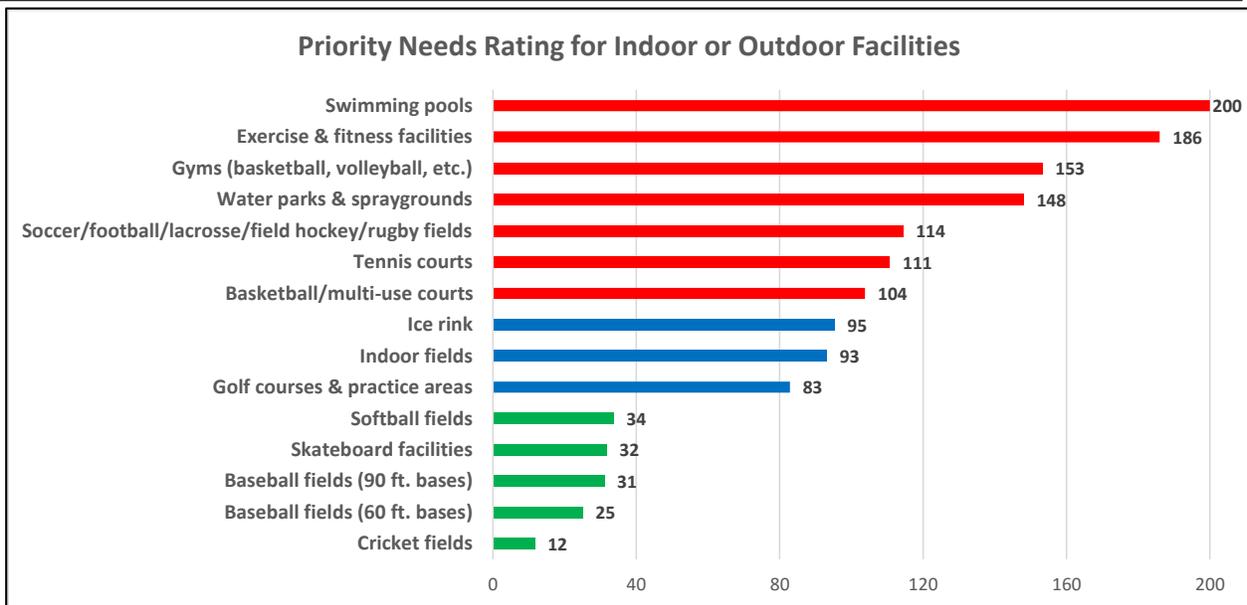
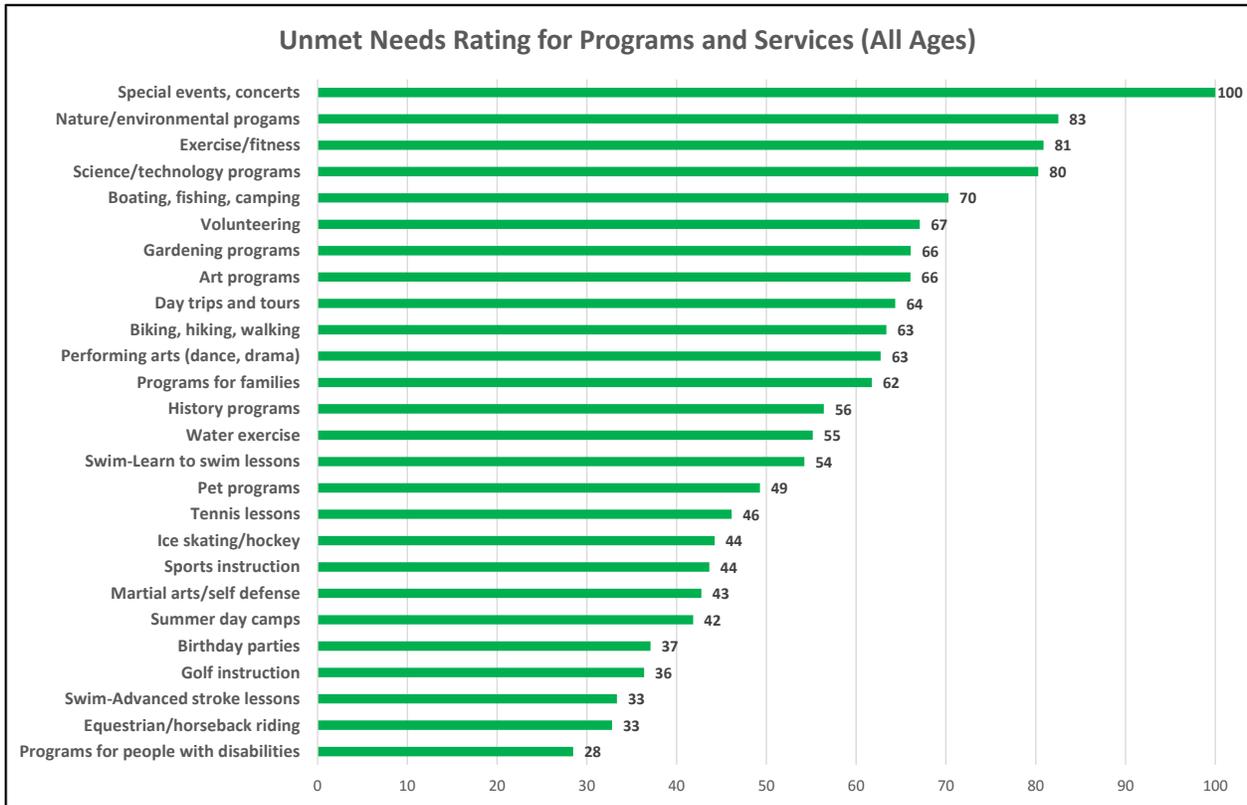
9.1.1 PARK, PLAY AREAS, GARDENS, TRAILS, EQUESTRIAN, NATURE OR HISTORIC PARKS OR FACILITIES NEEDS ANALYSIS



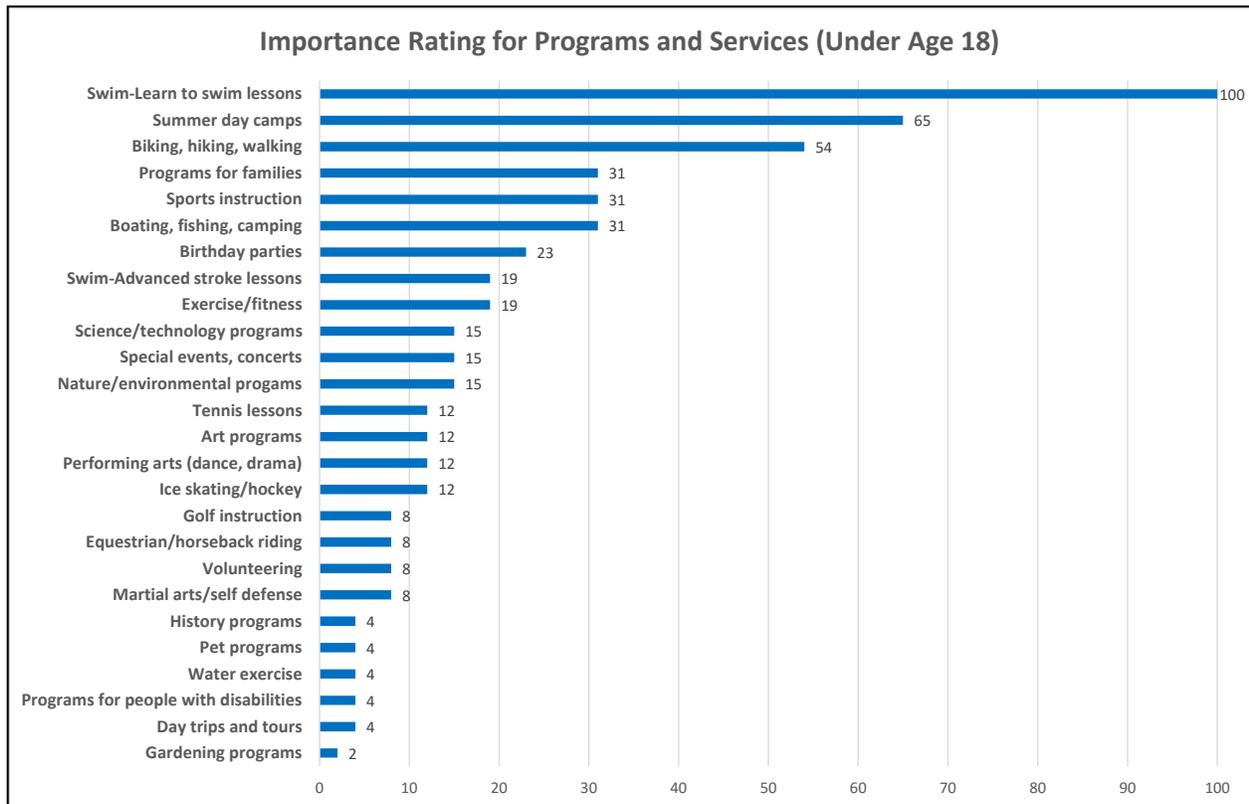


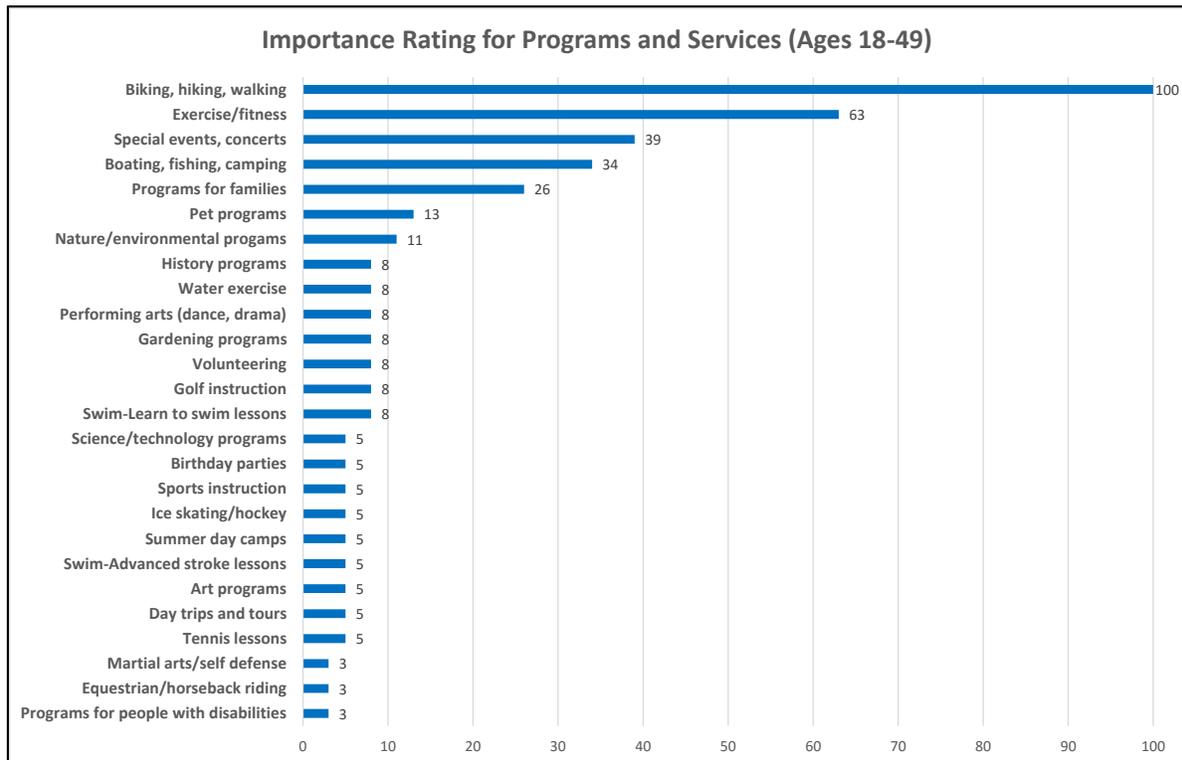
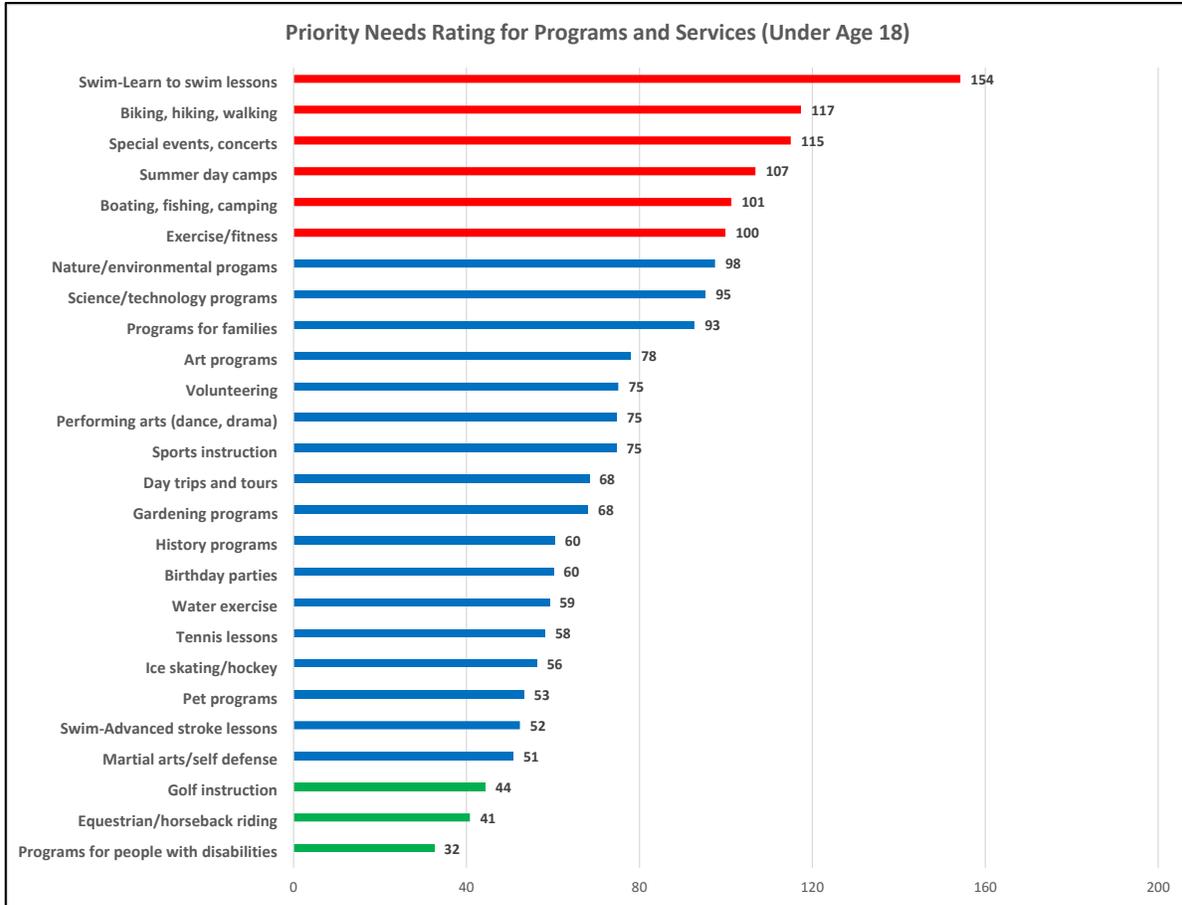
9.1.2 INDOOR OR OUTDOOR FACILITIES NEEDS ANALYSIS

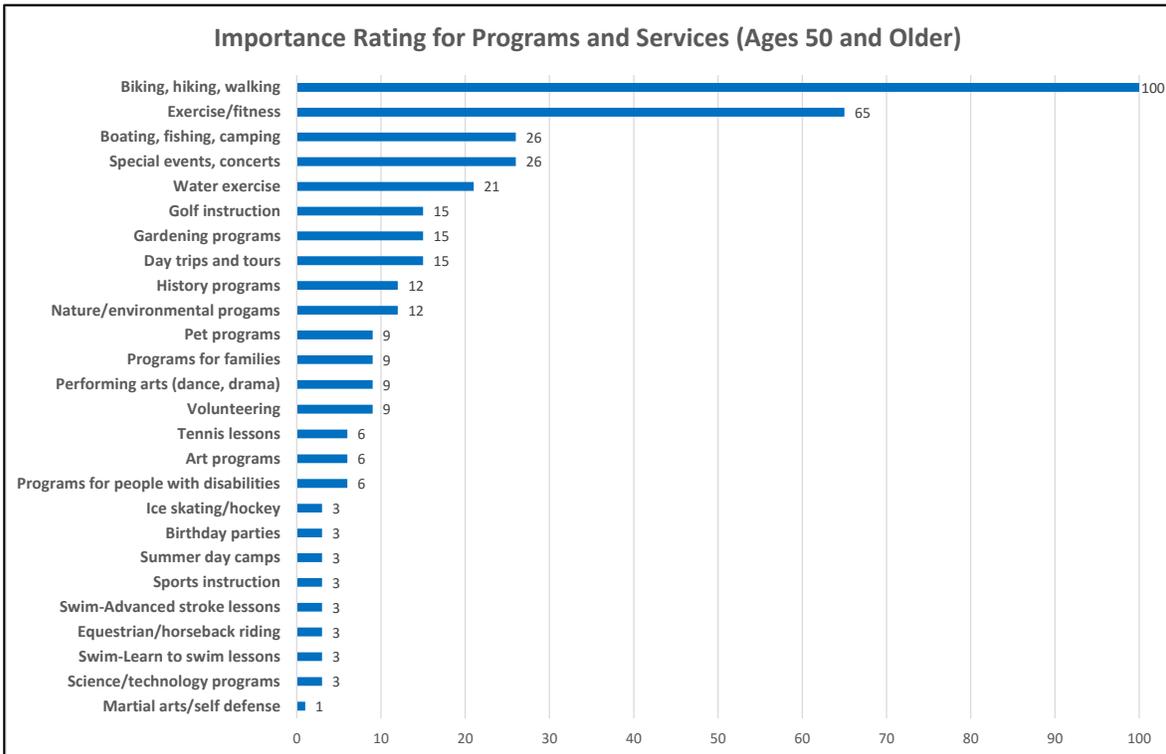
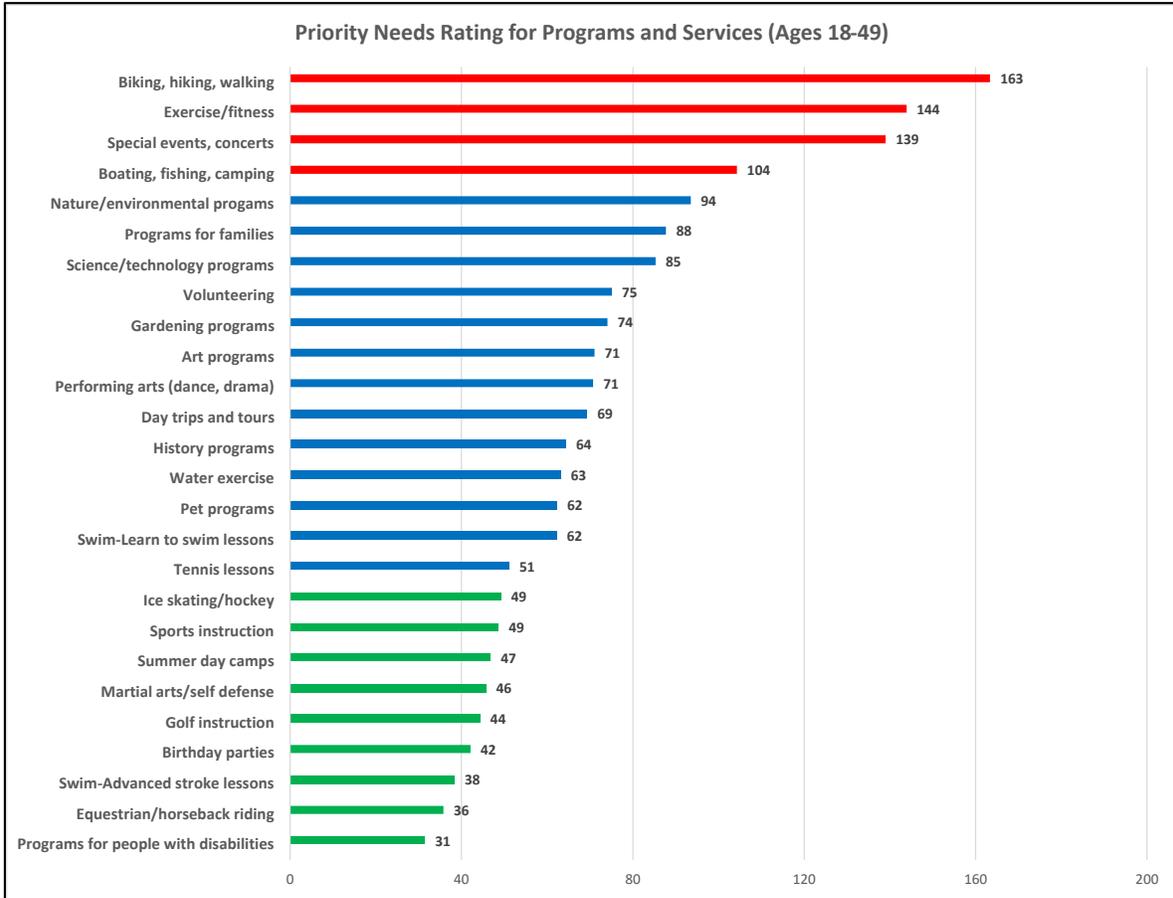


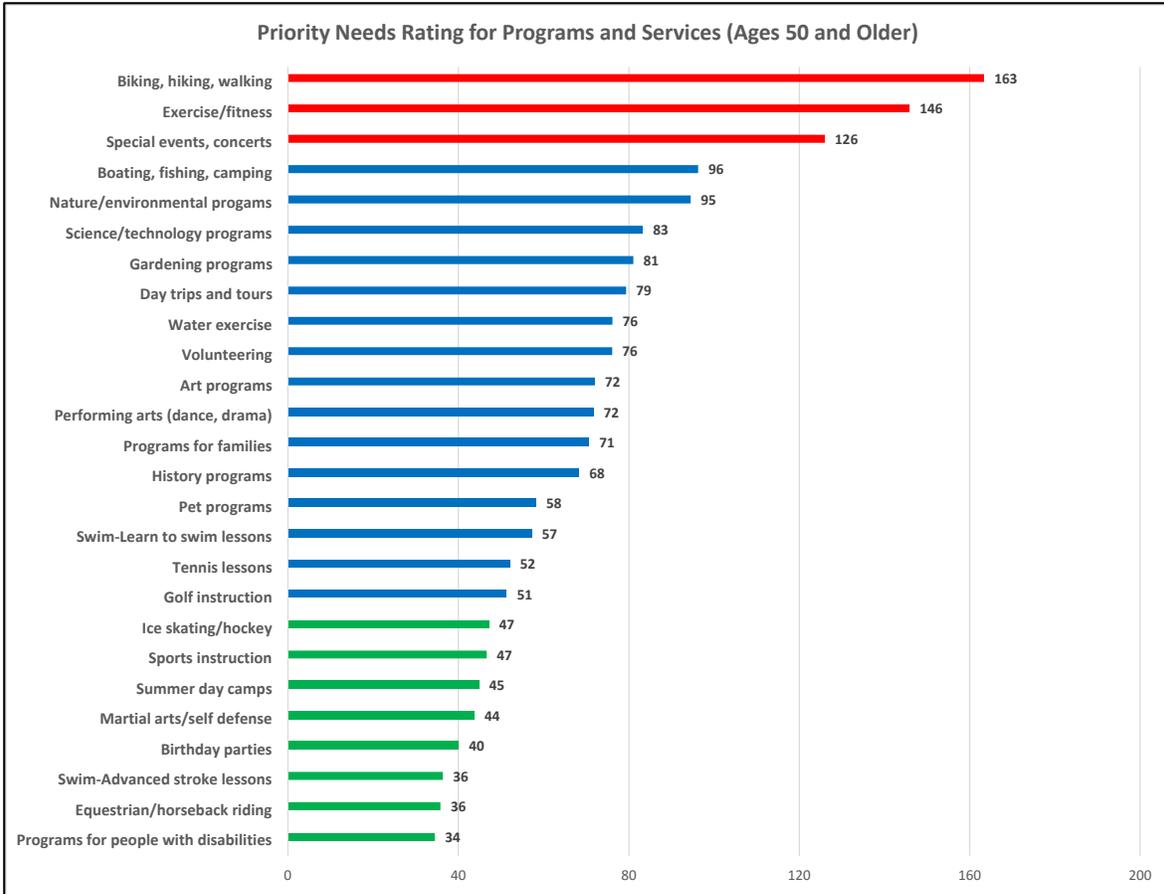


9.1.3 PROGRAMS NEEDS ANALYSIS











CHAPTER TEN - SERVICE LEVEL STANDARDS

Fairfax County Park Authority has an expansive and diverse amenities and park types that serve the recreational interests of residents, employees and visitors. These range from traditional amenities including playgrounds, shelters, sport courts, athletic fields, and swimming pools to specialty features such as historic sites, golf courses, recreation centers, expansive natural areas, and equestrian facilities.

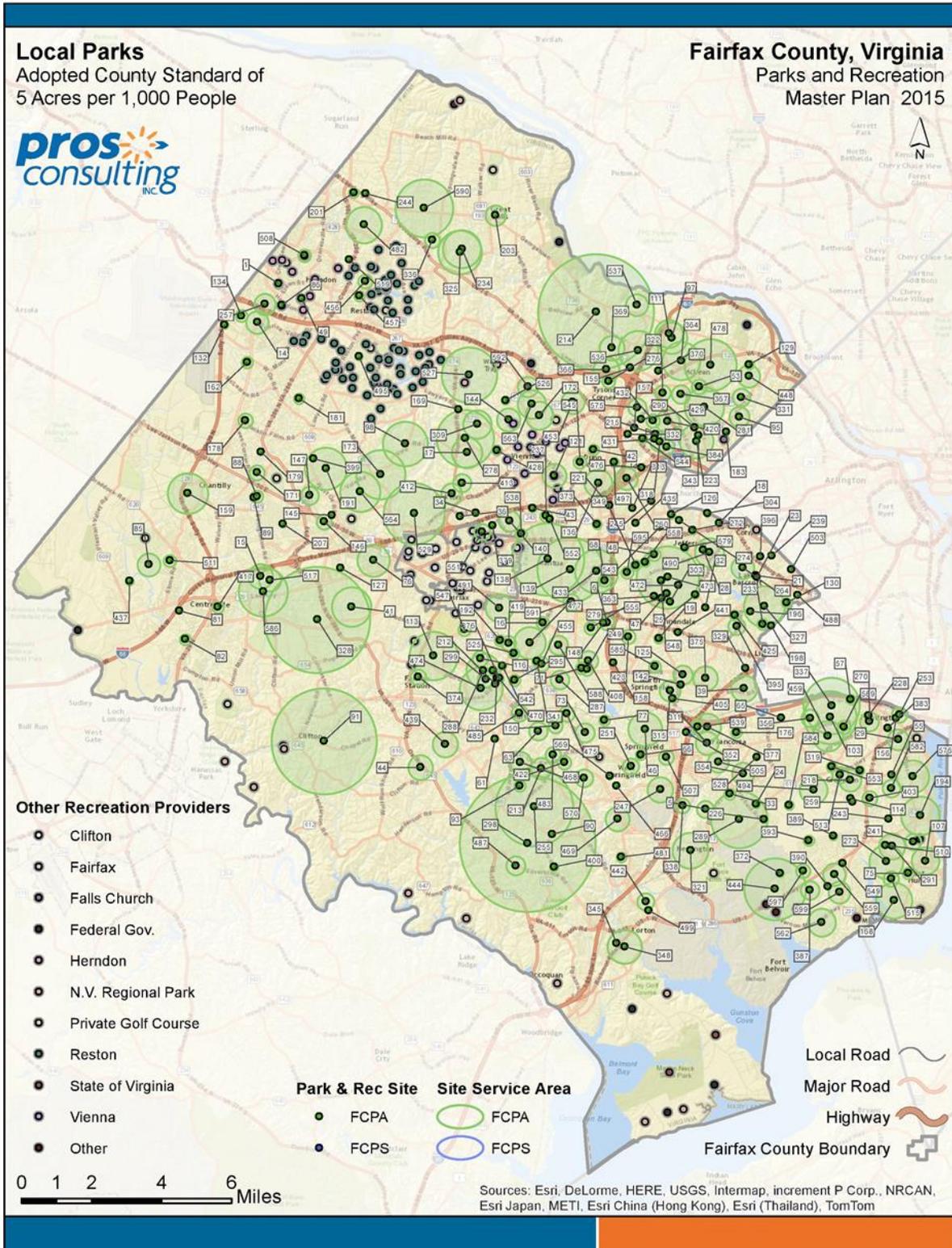
There are multiple methods for determining the community need for park-and-recreation facilities and programs. The most common and universally-accepted approach to a service level analysis originated with the National Recreation and Park Association (NRPA) in the 1980's when the organization began establishing norms for the amount of park lands or park amenities a community should strive for, based on its population. These guidelines are typically reflected as the total number of facilities or total park acreage per a measureable segment of the population, for example, a minimum of 10 acres of total park land for every 1,000 residents.

This needs assessment utilizes a similar service level analysis methodology to establish reasonable and prudent standards for various park types, facilities and amenities over the next 10 years that are customized to the data collected on Fairfax County park and recreation needs.

10.1 MAPPING ANALYSIS

Looking beyond the current system-wide service levels, it is also important to examine the distribution of current park types and assets across the park system. Twelve core park and asset type locations were mapped to identify where gaps may exist geographically in the park system. The maps (found in the Appendix of the report) show the service areas of the *current* inventory of park types and park assets based on the 2004 *adopted* service level standards. These standards are also indicated in the map title. The service area is calculated by the quantity of inventory of each site extended in a uniform radius until the population served by the standard is reached. Shaded areas indicate the extent of the service area based on recommended inventories; unshaded areas indicate locations that would remain outside of the standard service area for each park type or park asset. Unshaded areas are not always the most appropriate location for future parks or park assets due to lack of population density or other factors, but add a geographic aspect to the analysis of park needs. These shaded areas represent opportunities for potential additional facilities. Although there are occasions when the service area may extend beyond the border of Fairfax County, only Fairfax County's resident populations were utilized for calculating service-area standards in this analysis.

Mapping illustrates the service level analysis and where gaps exist in the park system. An example of the mapping analysis is shown on the following page.





As indicated in the table below, the Fairfax County Park Authority has responsibly worked to distribute sites and facilities throughout the county as reflected in the current site locations. While there are further opportunities to improve access to sites, current and future plans address many of these potential issues.

PARK SYSTEM ELEMENT	TECHNICAL ANALYSIS
	Equity Mapping
Local Parks (acres)	Balanced Coverage
District & Countywide Parks (acres)	Balanced Coverage
Resource Based Parks (acres)	Balanced Coverage
Picnic Pavilions & Areas, Reservable	Gaps Exist
Diamond, Baseball 60 ft Fields (Youth)	Gaps Exist
Diamond, Baseball 90 ft Fields (Youth, Adult)	Balanced Coverage
Diamond, Softball 60 ft Fields (Youth)	Balanced Coverage
Diamond, Softball 65 ft Fields (Adult)	Gaps Exist
Rectangle Fields (All)	Gaps Exist
Basketball Multi-Use Courts, Outdoor	Gaps Exist
Tennis Courts	Gaps Exist
Playgrounds	Balanced Coverage
Dog Parks, Neighborhood	Gaps Exist
Trails (miles)	Gaps Exist

The full set of park and asset type maps are provided in Appendix F of the report.

10.2 SERVICE LEVEL STANDARDS ANALYSIS

The service level standards analysis is a review of the inventory of parks and major park assets in relation to the total population of the study area and community needs. Ultimately, these standards should be used as goals for FCPA leadership to use in measuring service levels and making decisions about providing park facilities and assets. The standards **should not** be the sole determinant of how FCPA will invest in its parks, recreation facilities and trails system over the next 10 years.

10.2.1 CURRENT SERVICE LEVEL STANDARDS

Fairfax County park service level standards were last adopted in 2004 for 21 park and facility types. Using these adopted standards and the current public inventory (including schools and other public park systems), a calculation was done for each asset type to determine the percentage of the standards being met in 2015 as shown in the table below.

Park System Element	2015 Inventory - Developed Facilities				2004 Adopted Service Level Standards				
	FCPA Inventory	Total Inventory	% provided by FCPA	Current Service Level based upon population			Adopted Service Levels; Based on 2004 Needs Assessment		
Local Parks (acres)	3,591	5,531	65%	4.93	acres per	1,000	5.00	acres per	1,000
Playgrounds	210	456	46%	1.00	site per	2,458	1.00	site per	2,800
Outdoor Sport Courts (basketball/tennis)	289	645	45%	1.00	court per	1,739	1.00	court per	2,100
Skate Parks, Neighborhood	0	2	0%	1.00	site per	560,438	1.00	site per	50,000
Dog Parks, Neighborhood	9	12	75%	1.00	site per	93,406	1.00	site per	86,000
District & Countywide Parks (acres)	6,579	24,675	27%	22.01	acres per	1,000	13.00	acres per	1,000
REC Centers (Square Feet)	585,050	756,750	77%	0.68	SF per	person	0.25	SF per	person
Indoor Gyms (Square Feet)	50,240	1,490,425	3%	1.33	SF per	person	0.25	SF per	person
Picnic Pavilions & Areas, Reservable	64	102	63%	1.00	site per	10,989	1.00	site per	12,000
Diamond, Baseball 60 ft Fields (Youth)	47	134	35%	1.00	site per	8,365	1.00	site per	7,200
Diamond, Baseball 90 ft Fields (Youth, Adult)	21	59	36%	1.00	field per	18,998	1.00	field per	24,000
Diamond, Softball 60 ft Fields (Youth)	65	181	36%	1.00	field per	6,193	1.00	field per	8,800
Diamond, Softball 65 ft Fields (Adult)	29	29	100%	1.00	field per	38,651	1.00	field per	22,000
Rectangle Fields (All)	122	383	32%	1.00	field per	2,927	1.00	field per	2,700
Skate Parks, Countywide	2	2	100%	1.00	site per	560,438	1.00	site per	210,000
Golf (Holes)	135	153	88%	1.00	hole per	7,326	1.00	hole per	3,200
*Trails (miles)	325	676	48%	NA	NA	NA	NA	NA	NA
Equestrian Facilities	3	3	100%	1.00	site per	373,625	1.00	site per	595,000
Waterfront Parks	8	14	57%	1.00	site per	80,063	1.00	site per	90,000
Outdoor Family Aquatics	2	4	50%	1.00	site per	280,219	1.00	site per	570,000
*Resource Based Parks (acres)	13,168	13,168	100%	NA	NA	NA	NA	NA	NA
Horticulture Parks	2	3	67%	0.22	site per	1,698,295	1.00	site per	350,000
Nature Centers (Square Feet)	17,186	20,843	82%	0.02	SF per	person	0.10	SF per	person

PLEASE NOTE: Resource-based parks and trails, were not calculated in this population-based service level analysis because they are based on resource location and connected networks rather than the county's resident population.



10.2.2 HOW ADOPTED SERVICE LEVELS ARE BEING MET IN 2015

The following table shows the service level achieved by FCPA over the last decade in meeting the service level standards adopted in 2004. Overall, a high percentage of needs are being met currently in many of the areas that have the highest need (picnic pavilions, park acres, athletic fields, playgrounds, outdoor sport courts and RECenters). Based on the numeric analysis alone, while opportunities to meet the adopted service level standards exist for amenities such as skate parks, large diamond fields and nature centers. Further evaluation of each facility type and its service delivery is provided as part of the service level analysis culminating in strategic recommendations for FCPA to meet community need over the next decade.

Park System Element	2015 Inventory - Developed Facilities				2004 Adopted Service Level Standards			Adopted Service Level Standards Being Met in 2015	
	Total Inventory	Current Service Level based upon population			Adopted Service Levels; Based on 2004 Needs Assessment			Meet Standard/ Need Exists in 2015	% of Adopted Service Levels Being Met in 2015
Local Parks (acres)	5,531	4.93	acres per	1,000	5.00	acres per	1,000	Need Exists	99%
Playgrounds	456	1.00	site per	2,458	1.00	site per	2,800	Meets Standard	100%
Outdoor Sport Courts (basketball/tennis)	645	1.00	court per	1,739	1.00	court per	2,100	Meets Standard	100%
Skate Parks, Neighborhood	2	1.00	site per	560,438	1.00	site per	50,000	Need Exists	9%
Dog Parks, Neighborhood	12	1.00	site per	93,406	1.00	site per	86,000	Need Exists	92%
District & Countywide Parks (acres)	24,675	22.01	acres per	1,000	13.00	acres per	1,000	Meets Standard	100%
REC Centers (Square Feet)	756,750	0.68	SF per	person	0.25	SF per	person	Need Exists	100%
Indoor Gyms (Square Feet)	1,490,425	1.33	SF per	person	0.25	SF per	person	Meets Standard	100%
Picnic Pavilions & Areas, Reservable	102	1.00	site per	10,989	1.00	site per	12,000	Meets Standard	100%
Diamond, Baseball 60 ft Fields (Youth)	134	1.00	site per	8,365	1.00	site per	7,200	Need Exists	86%
Diamond, Baseball 90 ft Fields (Youth, Adult)	59	1.00	field per	18,998	1.00	field per	24,000	Meets Standard	100%
Diamond, Softball 60 ft Fields (Youth)	181	1.00	field per	6,193	1.00	field per	8,800	Meets Standard	100%
Diamond, Softball 65 ft Fields (Adult)	29	1.00	field per	38,651	1.00	field per	22,000	Need Exists	57%
Rectangle Fields (All)	383	1.00	field per	2,927	1.00	field per	2,700	Need Exists	92%
Skate Parks, Countywide	2	1.00	site per	560,438	1.00	site per	210,000	Need Exists	37%
Golf (Holes)	153	1.00	hole per	7,326	1.00	hole per	3,200	Need Exists	44%
*Trails (miles)	676	NA	NA	NA	NA	NA	NA	NA	NA
Equestrian Facilities	3	1.00	site per	373,625	1.00	site per	595,000	Meets Standard	100%
Waterfront Parks	14	1.00	site per	80,063	1.00	site per	90,000	Meets Standard	100%
Outdoor Family Aquatics	4	1.00	site per	280,219	1.00	site per	570,000	Meets Standard	100%
*Resource Based Parks (acres)	13,168	NA	NA	NA	NA	NA	NA	NA	NA
Horticulture Parks	3	0.22	site per	1,698,295	1.00	site per	350,000	Need Exists	94%
Nature Centers (Square Feet)	20,843	0.02	SF per	person	0.10	SF per	person	Need Exists	19%

PLEASE NOTE: Resource-based parks and trails, were not calculated in this population-based service level analysis because they are based on resource location and connected networks rather than the county's resident population.

10.2.3 MEETING ADOPTED SERVICE LEVELS GOALS IN 2025

The population of Fairfax County will increase by approximately 100,000 by 2025 and with it, there will be a correlating increase in need for park and recreation facilities. The following table shows the level at which FCPA’s current inventory will meet the adopted service level standards in 2025. Assuming a similar public inventory, unmet needs that exist in 2015 will continue to exist and increase in 2025 due to the growth in population.

Park System Element	2015 Inventory - Developed Facilities				2004 Adopted Service Level Standards			Service Levels Projected to 2025	
	Total Inventory	Current Service Level based upon population			Adopted Service Levels; Based on 2004 Needs Assessment			Meet Standard/ Need Exists in 2025	% of Service Levels Being Met in 2025
Local Parks (acres)	5,531	4.93	acres per	1,000	5.00	acres per	1,000	Need Exists	91%
Playgrounds	456	1.00	site per	2,458	1.00	site per	2,800	Meets Standard	105%
Outdoor Sport Courts (basketball/tennis)	645	1.00	court per	1,738	1.00	court per	2,100	Meets Standard	112%
Skate Parks, Neighborhood	2	1.00	site per	560,438	1.00	site per	50,000	Need Exists	8%
Dog Parks, Neighborhood	12	1.00	site per	93,406	1.00	site per	86,000	Need Exists	85%
District & Countywide Parks (acres)	24,675	22.01	acres per	1,000	13.00	acres per	1,000	Meets Standard	156%
REC Centers (Square Feet)	756,750	0.68	SF per	person	0.25	SF per	person	Meets Standard	249%
Indoor Gyms (Square Feet)	1,490,425	1.33	SF per	person	0.25	SF per	person	Meets Standard	491%
Picnic Pavilions & Areas, Reservable	102	1.00	site per	10,989	1.00	site per	12,000	Meets Standard	101%
Diamond, Baseball 60 ft Fields (Youth)	134	1.00	site per	8,365	1.00	site per	7,200	Need Exists	79%
Diamond, Baseball 90 ft Fields (Youth, Adult)	59	1.00	field per	18,998	1.00	field per	24,000	Meets Standard	79%
Diamond, Softball 60 ft Fields (Youth)	181	1.00	field per	6,193	1.00	field per	8,800	Meets Standard	131%
Diamond, Softball 65 ft Fields (Adult)	29	1.00	field per	38,651	1.00	field per	22,000	Need Exists	53%
Rectangle Fields (All)	383	1.00	field per	2,927	1.00	field per	2,700	Need Exists	85%
Skate Parks, Countywide	2	1.00	site per	560,438	1.00	site per	210,000	Need Exists	35%
Golf (Holes)	153	1.00	hole per	7,326	1.00	hole per	3,200	Need Exists	40%
Trails (miles)	676	NA	NA	NA	NA	NA	NA	NA	NA
Equestrian Facilities	3	1.00	site per	373,625	1.00	site per	595,000	Meets Standard	147%
Waterfront Parks	14	1.00	site per	80,063	1.00	site per	90,000	Meets Standard	104%
Outdoor Family Aquatics	4	1.00	site per	280,219	1.00	site per	570,000	Meets Standard	188%
Resource Based Parks (acres)	13,168	NA	NA	NA	NA	NA	NA	NA	NA
Horticulture Parks	3	0.22	site per	1,698,295	1.00	site per	350,000	Need Exists	87%
Nature Centers (Square Feet)	20,843	0.02	SF per	person	0.10	SF per	person	Need Exists	17%

PLEASE NOTE: Resource-based parks and trails, were not calculated in this population-based service level analysis because they are based on resource location and connected networks rather than the county’s resident population.



10.3 SERVICE LEVELS RECOMMENDATION

The service level standards adopted in 2004 have served Fairfax County well and provide a basis for measuring park system performance. Coupled with the park system assessments, community input and analysis conducted, it is recommended that the County **retain** the Service Level Standards adopted in 2004 for its core facilities (Local Parks, playgrounds, sport courts, neighborhood skate parks, neighborhood dog parks, district and Countywide Parks, athletic fields and indoor gyms).

The number of service level standards adopted in 2004 spanned a wide range of 21 park assets, some of which are more appropriately planned and measured in terms of market feasibility or other factors. Some of these asset types include only a few facilities within the asset type and serve a large part of the County or the entire County. These facility types include Reservable picnic shelters, RECenters, Countywide skate parks, County wide dog parks, golf, equestrian facilities, waterfront parks, outdoor family aquatics, horticulture parks and nature centers. Decision making about these asset types is driven more by programmatic, feasibility and other factors rather than on a population/service ratio basis. Therefore, it also recommended that population-based service level standards for these facilities be eliminated.

Further service delivery analysis should be undertaken to ensure equitable access to parks, trail connectivity and management of natural and cultural resources as part of the update to the Park System Comprehensive Plan, *Great Parks, Great Communities*, and the agency’s Strategic Plan update.

10.3.1 SUMMARY OF SERVICE LEVELS RECOMMENDATION

The following chart summarizes the recommendation to **retain** the current Service Level Standards adopted in 2004 for core park and facility types.

Park System Element	2016 Recommended Service Levels		
Local Parks	5.00	acres per	1,000
Playgrounds	1.00	site per	2,800
Outdoor Sport Courts (basketball/tennis)	1.00	court per	2,100
Skate Parks, Neighborhood	1.00	site per	50,000
Dog Parks, Neighborhood	1.00	site per	86,000
District & Countywide Parks	13.00	acres per	1,000
Indoor Gyms	0.25	SF per	person
Diamond, Baseball 60 ft Fields (Youth)	1.00	site per	7,200
Diamond, Baseball 90 ft Fields (Youth, Adult)	1.00	field per	24,000
Diamond, Softball 60 ft Fields (Youth)	1.00	field per	8,800
Diamond, Softball 65 ft Fields (Adult)	1.00	field per	22,000
Rectangle Fields (All)	1.00	field per	2,700

10.4 SERVICE LEVEL RECOMMENDATIONS AND FCPA CONTRIBUTION STRATEGIES

The recommended service level standards consider all publicly provided parks and facilities and FCPA is one of many countywide providers of park and recreation facilities and services and therefore generally provides less than 100% of the total public inventory. For each park and facility type, an evaluation of FCPA's share or responsibility to address citizen needs, is reflected through recommended FCPA contribution strategies. Contribution strategies represent key actions for FCPA to provide its share of needed facilities and parkland through 2025. The following sections examine each major park and facility type to support recommendation to retain Service Level Standards and recommended contribution strategies for park and recreation facilities that will be needed through 2025.

10.4.1 PLAYGROUNDS

Playgrounds serve recreational and community gathering purposes and are a key local park facility. Traditional playgrounds serve children between the ages of 2 and 12 and are provided in parks, schools, and in communities on private property (e.g., HOA). FCPA provides about half of the public playground inventory. (Note: The public inventory includes school playgrounds that are not publicly accessible during school hours.) Playgrounds ranked highly in the survey and public input also identified playgrounds as important. Existing service levels standards for playgrounds are being met.

The 2004 Needs Assessment set a goal of building two new destination playgrounds; Clemyjontri and the family recreation playground at Lee District have been completed since then. Playground popularity and use are high and FCPA currently has a significant backlog of playgrounds needing replacement and reinvestment.

Outdoor fitness equipment is a new trend for teen and adult use that could be considered in this asset type. FCPA has recently completed an outdoor fitness study with recommendations for locations. Adding this facility type as recommended in the study is warranted.

Natural playgrounds and thematic playgrounds are also popular and provide interpretive, educational and experiential opportunities and should be incorporated as appropriate throughout the system.

SERVICE LEVEL STANDARD RECOMMENDATION: RETAIN CURRENT, 1 PER 2,800

FCPA CONTRIBUTION STRATEGIES: (1) REINVEST; (2) MAINTAIN

- Match facility type to community needs
- Pursue thematic play areas such as natural playgrounds and historic themes in appropriate locations
- Repair, improve existing playgrounds
- Maintain existing destination playgrounds
- Where feasible work with private providers, partnerships and grants
- Avoid duplication of privately provided playgrounds (e.g., HOAs, churches)
- Implement outdoor fitness equipment study recommendations
- Incorporate natural and thematic playgrounds where appropriate



10.4.2 RESERVABLE PICNIC PAVILIONS AND AREAS,

Picnic pavilions and areas offer social and community gathering opportunities in natural and park settings and also support programming such as birthday parties, summer day camps and nature/environmental programs. FCPA's reservable picnic areas and shelters are in high demand with popularity increasing. They are a steady source of revenue with low operating costs. The agency provides just over half of the public inventory. Picnic pavilions and areas ranked in the middle of the survey; family and social use of picnic areas was mentioned in public input.

The 2004 Needs Assessment set a goal of adding 20 new reservable areas; eight were completed. Many of the group picnic shelters in the park system are beyond lifecycle and need renewal. Different outdoor event space models may provide more specialty utilization and revenue production and should be more thoroughly studied.

Reservable picnic shelters are designed to support District and Countywide Parks and to recover all or a large portion of its costs for operations, maintenance, and programming. Little to no general fund support is provided. Decision-making for provision of this facility type is primarily market-based rather than measured by a population-based service level standard. FCPA should consider eliminating the facility service level standard to better reflect actual provision decisions.

SERVICE LEVEL STANDARD RECOMMENDATION: ELIMINATE POPULATION BASED SERVICE LEVEL STANDARD

FCPA CONTRIBUTION STRATEGY: (1) STUDY (2) CONSTRUCT NEW (3) REINVEST

- Conduct market feasibility to construct two large (1,000+) pavilions
- Complete pavilions based on market feasibility
- Maintain and upgrade existing picnic facilities and add/upgrade amenities, as needed to protect revenue production

10.4.3 HORTICULTURE PARKS

FCPA provides one large public garden centered on horticultural elements, Green Spring Gardens. John C. and Margaret H. White Gardens and Marie Butler Leven Park both contain significant horticulture features that support FCPA's horticulture program. FCPA provides just over half of the horticultural park public inventory. Green Spring Gardens generates revenue through its programs, but does not cover its operation costs and is constrained by limited space and parking for programming. Horticultural features ranked in the top third of the survey and were briefly mentioned in public input.

Since 2004, interest in horticultural activities and community garden plots in particular has increased. Waiting lists for community garden plots often significantly exceed the total plots provided.

Horticultural parks do not generally recover their operating costs and rely on general fund support. Provision of this facility type therefore is far more dependent on funding and available horticultural resources/collections than it is on a population-based service level standard. FCPA should eliminate the facility service level standard to better reflect actual provision decisions.

SERVICE LEVEL STANDARD RECOMMENDATION:

ELIMINATE POPULATION BASED SERVICE LEVEL STANDARD

FCPA CONTRIBUTION STRATEGY: (1) IMPROVE; (2) IMPLEMENT; (3) PARTNER

- Improve Green Spring Gardens per Master Plan

- Continue to utilize partnerships for plan implementation/program expansion
- Expand horticultural programming as space permits
- Implement, install community garden plots in parks where master planned
- Phased MP implementation and partnership development at White Garden

10.4.4 GOLF

FCPA provides a diverse range of golf courses and driving ranges. The agency provides over three-quarters of publicly-accessible courses in the County. These facilities offer revenue generation, are market driven and support golf instruction programming. National trends of decreased golf interest have stabilized over the last couple years, offering opportunities. Golf ranked in the bottom third of the survey, but was discussed in public input.

Since the 2004 Needs Assessment, Laurel Hill Golf Course was completed as the agency's premiere golf club. In addition, a National Golf Foundation Study was completed several years ago and is currently being implemented including installation of a new enterprise POS system. Golf is designed to recover its costs for operations, maintenance, and programming. Little to no general fund support is provided. Therefore, provision of this facility type is primarily market-based rather than measured by a population-

SERVICE LEVEL STANDARD RECOMMENDATION:

ELIMINATE POPULATION BASED SERVICE LEVEL STANDARD

FCPA CONTRIBUTION STRATEGY: (1) REINVEST (2) MONITOR

- Implement remaining National Golf Foundation study recommendations
- Seize revenue-generating programming trends (e.g. foot golf, electronic golf)
- Continue club house and driving range improvements
- Closely monitor market trends to identify and assess market opportunities

10.4.5 RECENTERS

RECenters offer indoor aquatics, fitness equipment, indoor gyms, classes and programs. Provision of the centers is largely market driven and the programs and services they provide, including but not limited to, fitness and exercise, sports instructions, swim lessons and martial arts/self-defense, are highly valued by residents. FCPA provides about three quarters of public recreation center space in Fairfax County. RECenter offerings ranked at the top of the survey and the services were mentioned often in public input.

In the time since the 2004 Needs Assessment, 57,000 square feet of expansions and upgrades to three RECenters have been completed. Cub Run RECenter was added offering the system's first indoor leisure pool. The popularity and heavy use of the facilities has created a significant need for reinvestment, over \$63 million over the next 20 years.

An assessment of eight RECenters as part of this Needs Assessment identified \$63.5M in facility lifecycle replacement needs. A detailed market and facility assessment has been conducted for Mount Vernon RECenter and Ice Rink that includes facility renewal recommendations and a concept plan.

RECenters are a specialty facility type designed to recover all or a large portion of its costs for operations, maintenance, and programming. Little to no general fund support is provided. Therefore, provision of this facility type is primarily market-based rather than measured by a population-based service level



standard. FCPA should consider eliminating the facility service level standard to better reflect actual provision decisions.

SERVICE LEVEL STANDARD RECOMMENDATION: ELIMINATE POPULATION BASED SERVICE LEVEL STANDARD

FCPA CONTRIBUTION STRATEGY: (1) REINVEST (2) STUDY

- Conduct system-wide study for market feasibility and program preferences
- Implement recommendations and concept plan for Mt. Vernon RECenter renewal.
- Phase needed upgrades and lifecycle improvements throughout the RECenter system

10.4.6 NATURE CENTERS

Nature centers provide educational and interpretive programming as well as community gathering opportunities in parks. Nature center programs also support standards of learning requirements in public schools. The facilities offer an important link to nature and natural processes. FCPA provides over three-quarters of the public inventory in the County, but facilities date to the 60's and 70's with program spaces that need reinvestment and updating. Nature centers ranked in the middle of the survey and were discussed in focus groups.

Improvements to FCPA spaces and exhibits have been completed since 2004; gains were also made by non-FCPA entities (e.g., NOVAparks). Additionally, the 2012 Park Bond included a Sully Stewardship Center.

Nature centers are a specialty facility type not designed to recover its operating costs and is reliant on general fund support. Provision of this facility type therefore is far more dependent on funding and appropriate setting than it is on a population based service level standard. FCPA should consider eliminating the facility service level standard in the future to better reflect actual provision decisions.

**SERVICE LEVEL STANDARD RECOMMENDATION:
ELIMINATE POPULATION BASED SERVICE LEVEL STANDARD**

FCPA CONTRIBUTION STRATEGY: (1) UPGRADE/REINVEST (2) PARTNER (3) UTILIZE ALTERNATIVE SPACES

- Construct and complete the Sully Stewardship Center through partnerships
- Maintain/grow partnerships to support programming, especially with schools
- Expand outdoor classroom facilities for added program space
- Expand passive interpretation facilities (e.g., signage, podcasts)

10.4.7 DOG PARKS

Dog ownership and the popularity of dog parks and off-leash exercise areas has increased significantly over the past decade. The facilities provide pet programs, as well as social and community gathering opportunities and are increasingly important in redeveloping mixed use and urbanizing areas. FCPA provides three quarters of the public inventory in the form of neighborhood dog parks. In urban areas of the county, private dog parks are starting to be provided. Dog parks ranked in the middle of the survey and were included in the public input.

In 2004, a neighborhood and Countywide dog park service level standards were adopted. Countywide dog park was envisioned to be an event center to host dog related events, training and other programs. Dog programming in the County park system has expanded utilizing alternative spaces including the equestrian facility at Frying Pan Farm Park and South Run District Park. A Countywide facility would likely need corporate sponsorship and market feasibility support rather than relate to a population-based service level standard.

Since 2004, four dog parks have been completed and pet-related programming has been added increasing the overall service level for this facility type. Provision by private developers, partnerships, and volunteer support have also increased. A countywide dog park study to help identify future locations is currently underway by FCPA.

SERVICE LEVEL STANDARD RECOMMENDATION: RETAIN CURRENT NEIGHBORHOOD DOG PARK STANDARD, 1 PER 86,000; ELIMINATE COUNTYWIDE DOG PARK STANDARD (1 PER 400,000)

FCPA CONTRIBUTION STRATEGY: (1) BUILD; (2) IMPLEMENT

- Build master planned dog parks
- Implement dog park study recommendations
- Support provision of private dog parks by developers as part of new development
- Maintain and upgrade existing dog parks
- Continue to partner with volunteers

10.4.8 SKATE PARKS

Skate parks are popular recreational and social facilities used by a wide age range of youth. These facilities are most useful when they can be collocated with other uses, proximate to schools, public transportation, and trails. FCPA provides two large skate parks at Wakefield and Lake Fairfax parks, equivalent to over three-quarters of the public inventory in the County. Skate parks ranked in the bottom quarter of the survey and was infrequently mentioned in public input.

The 2004 Needs Assessment set a goal of completing nine neighborhood and two countywide skate parks. Two countywide parks (Wakefield and Lake Fairfax) were completed. Several neighborhood skate park and skate spots have been planned in local parks, but not yet built. FCPA is currently conducting a countywide neighborhood skate park study to identify neighborhood skate facility models and locations within the park system.

SERVICE LEVEL STANDARD RECOMMENDATION: RETAIN CURRENT NEIGHBORHOOD SKATEPARK - 1 PER 106,000, ELIMINATE COUNTYWIDE SKATEPARK - 1 PER 210,000,

FCPA CONTRIBUTION STRATEGY: (1) BUILD; (2) MAINTAIN (3) STUDY

- Build neighborhood skate parks to augment
- Complete the skate park study currently underway
- Identify reuse opportunities
- Maintain existing Countywide parks



10.4.9 EQUESTRIAN FACILITIES

Equestrian facilities offer recreational opportunities through access to trails, programming, horseback riding/instruction and competition venues. FCPA provides most of the public inventory of equestrian facilities in the county. Private facilities also exist and address need, but may not be sustainable long term due to the influence of market forces. Equestrian facilities ranked in the bottom quarter of the survey but were frequently discussed in public input.

Improvements to existing facilities and trails, increased access, and additional facilities and programs have been made since 2004. Equestrian facilities are not designed to recover operating costs and is reliant on general fund support. Provision of this specialty facility type therefore is far more dependent on funding and available appropriate sites than it is on a population based service level standard. FCPA should consider eliminating the facility service level standard to better reflect actual provision decisions.

SERVICE LEVEL STANDARD RECOMMENDATION: ELIMINATE POPULATION BASED SERVICE LEVEL STANDARD

FCPA CONTRIBUTION STRATEGY: (1) MAINTAIN (2) PARTNER

- Maintain improvements
- Create/strengthen partnerships for implementation of planned improvements

10.4.10 WATERFRONT PARKS

Waterfront parks include three large lakefront parks (Burke Lake, Lake Fairfax, Lake Accotink), one riverfront park (Riverbend), and several other smaller lakefront parks that remain mostly in a natural state. They offer a mix of recreational, programming, stewardship education and social opportunities, including fishing/boating, picnicking, hiking and other trail uses, and also support revenue operations. FCPA provides about half of the public inventory of waterfront parks. Waterfront parks ranked in the top half of the survey and featured prominently in public input.

Upgrades to these parks and facilities, as well as increases to programming and revenue generation have occurred since 2004. Provision of waterfront parks is based on a body of water rather than on a population based service level standard. FCPA should consider eliminating the facility service level standard in the future to better reflect actual provision decisions.

SERVICE LEVEL STANDARD RECOMMENDATION: ELIMINATE POPULATION BASED SERVICE LEVEL STANDARD

FCPA CONTRIBUTION STRATEGY: (1) MAINTAIN (2) REINVEST

- Maintain and reinvest in lakefront and riverfront parks
- Implement Riverbend Master Plan revision.
- Update master plans for Lake Accotink and Lake Fairfax
- Expand programming and trail networks

10.4.11 OUTDOOR FAMILY AQUATICS

Outdoor family aquatics include water-centered recreational facilities, such as waterparks and spray grounds. These seasonal facilities are important recreational and community gathering elements of the park system. FCPA provides half of the public inventory in the county. Outdoor family aquatics ranked near the top of the survey and were frequently mentioned in public input.

Since 2004, Water Mine expansions have been completed and the Lee District spray park was constructed. Other public providers (e.g., NOVA Parks) have also completed facilities of this type. Increases in private providers installing spray parks have also occurred.

Outdoor Family Aquatic facilities primarily market-based rather than measured by a population-based service level standard. FCPA should consider eliminating the facility service level standard to better reflect actual provision decisions.

SERVICE LEVEL STANDARD RECOMMENDATION:

ELIMINATE POPULATION BASED SERVICE LEVEL STANDARD

FCPA CONTRIBUTION STRATEGY: (1) MAINTAIN; (2) MONITOR

- Encourage private providers/partners to create spray parks with redevelopment
- Maintain destination water parks
- Monitor recent expansion of Water Mine and use as model for other improvements, if market supports

10.4.12 TRAILS

Trails cross and connect parks of all types and provide hiking and biking programming and events to county residents. The trail network crosses the entire county, consists of various surface types, and serves all modes of travel and recreational use. FCPA provides about half of the countywide public trail network and connectivity between segments is key. Trails ranked near the top of the survey and were discussed often in public input. Trail use has and will continue to increase locally and nationally to support important health and wellness efforts. The park trail system is also important to the County efforts to improve its multi-modal transportation network to support non-vehicular commuting.

FCPA uses the Trail Development Strategy Plan to prioritize trail improvement projects. Since 2004, approximately 35 miles of new trail construction and numerous trail improvements have been completed. Improvements to existing trail conditions are critical to the network and has been deferred in many areas of the County.

Since the trail system is a network rather than measured in units, a service level standard is not appropriate.

SERVICE LEVEL STANDARD RECOMMENDATION: N/A, RETAIN FCPA STRATEGY

FCPA CONTRIBUTION STRATEGY: (1) REINVEST; (2) CONNECT; (3) PARTNER

- Reinvest heavily in trail maintenance
- Focus new construction on missing links
- Encourage provision of connections through the development process
- Foster partnerships to assist with maintenance and construction (as appropriate)



- Connect people to parks

10.4.13 SPORTS COURTS

Sport courts are paved areas for athletic pursuits and sports instruction programming, and include tennis and basketball courts. The courts are multi-use and often support additional and emerging sports (e.g., pickleball, futsal) that are increasing in popularity. FCPA provides almost half of the public inventory. Sport courts ranked just above the middle of the survey and were occasionally mentioned in public input, often as references to increasing use for pickleball that is especially popular with seniors, a population segment that is increasing in Fairfax County.

The 2004 Needs Assessment set a goal of constructing a basketball complex, but that has not yet been completed. There has been limited new construction by public providers, although single courts have been constructed by private providers (e.g., in urban areas, by HOAs). Additionally, consideration has been given to repurposing underused courts.

SERVICE LEVEL STANDARD RECOMMENDATION: RETAIN CURRENT, 1 PER 2,100 (BASKETBALL)

FCPA CONTRIBUTION STRATEGY: (1) UPGRADE; (2) CONSTRUCT; (3) ADAPT

- Install lights at selected courts to add capacity, as appropriate
- Build one multi-court (6-12) complex, possible indoors
- Encourage provision through development process
- Focus maintenance on high use sites
- Identify opportunities for reuse at low use sites
- Conduct additional study on tennis court usage, any geographical variations
- Adapt courts for emerging sports such as pickleball and skate parks

10.4.14 INDOOR GYMNASIUMS

Indoor gymnasiums offer opportunities to play a variety of sports and engage in numerous recreational activities and programs. Uses range from basketball and volleyball to cheer and tumbling practices. The variety and popularity of activities that use indoor gyms continue to grow rapidly. FCPA provides a very small percentage of public facilities, most of which are provided in public schools and available to the community in the evenings and weekends. Indoor gyms ranked near the top of the survey and were discussed in public input.

Since 2004, expansions at Spring Hill RECenter added indoor gym space. Private providers and other public providers have added space that also helps meet some need.

SERVICE LEVEL STANDARD RECOMMENDATION: 2.8 SF PER PERSON

FCPA CONTRIBUTION STRATEGY: (1) MAINTAIN (2) STUDY

- Continue to consider providing with RECenter expansions/improvements
- Conduct and implement RECenter system study

10.4.15 RECTANGLE FIELDS

Rectangle fields support a variety of sports, including soccer, football, lacrosse, field hockey, and cricket. They are used by players of all ages and skill levels. As range and formats of sports played on

rectangle fields grow, so do the demands placed upon them. FCPA provides about one-third of public facilities. Rectangle fields ranked in the top third of the survey and were a frequent topic of public input, particularly interest in complexes.

The 2004 Needs Assessment set a goal of 95 rectangle fields, based on grass and unlit fields. Since 2004, 15 new FCPA and 21 new Fairfax County Public School (FCPS) fields have been constructed. Another 30 FCPA and 48 FCPS fields have been improved with synthetic turf and/or lights. These investments have significantly increased and improved the provision of rectangle fields in meeting the growing need.

SERVICE LEVEL STANDARD RECOMMENDATION: RETAIN CURRENT, 1 PER 2,700

FCPA CONTRIBUTION STRATEGIES: (1) REINVEST; (2) SUPPLEMENT; (3) PARTNER

- Consider opportunities for complexes
- Contribute the equivalent to approximately 30 rectangles by completing fields in design/development, implementing adopted master planned fields and through development proffered facilities.
- Reinvest in existing fields, improving conditions and capacity
- Continue to partner with sport organizations and schools to increase community use of fields through added capacity and scheduling enhancements

10.4.16 DIAMOND, SOFTBALL 65' (ADULT)

These diamond fields support softball sports and are used by players of various ages and skill levels. Softball remains popular and in demand by youth and adult players, alike. FCPA provides all of the public inventory of this field type. 65' diamond fields ranked near the bottom of the survey and were discussed in public input.

No new fields of this type have been constructed since 2004, although a goal of four additional fields was set.

SERVICE LEVEL STANDARD RECOMMENDATION: RETAIN CURRENT SL, 1 PER 22,000

FCPA CONTRIBUTION STRATEGY: (1) SUPPLEMENT; (2) IMPROVE; (3) PARTNER

- Consider redesign of underutilized diamond fields
- Invest in fields already in adopted master plans
- Continue to obtain through the development process
- Anticipate contributions by private sector
- Add synthetic turf and lights to increase capacity
- Add equivalent to 5 fields
- Continue to partner with sport organizations to increase community use of fields through added capacity and scheduling enhancements

10.4.17 DIAMOND, BASEBALL 90' (YOUTH & ADULT)

Adult and youth baseball fields are 90' diamond fields with grass (natural or synthetic) infields used by players of various ages and skill levels. As high level and travel team play grows, so do demands for this field type as does the need for a tournament facility with multiple fields in one location. FCPA provides



about one-third of public facilities, all as single standalone fields. 90' diamond fields ranked near the bottom of the survey and were a popular topic of public input with specific reference to complexes and travel team use.

Since 2004, three FCPA and one FCPS fields have been constructed and two FCPS fields have been improved with synthetic turf and/or lights. In this same time, two fields of this type have been removed. The 2004 Needs Assessment goal was nine additional fields. Community access to 90' diamonds at high schools has increased since 2004, but high school team use is favored in scheduling and constrains the field inventory.

SERVICE LEVEL STANDARD RECOMMENDATION: RETAIN CURRENT, 1 PER 24,000

FCPA CONTRIBUTION STRATEGY: (1) BUILD COMPLEX; (2) PARTNER

- Complete fields in design/development (LLV/Patriot)
- Invest in fields already in adopted master plans
- Continue to partner with schools and sports organizations to increase community use of fields through added capacity and scheduling enhancements
- Complete planned complex

10.4.18 DIAMOND, SOFTBALL/BASEBALL 60' (YOUTH)

Youth diamond fields are 60' fields with either skinned or grassed infields. These fields are used by both softball and baseball youth players of various skill levels. FCPA provides about one-third of the public inventory of this field type. 60' diamond fields ranked near the bottom of the survey and were discussed in public input.

Since 2004, four FCPA fields have been constructed and seven FCPA fields were improved with synthetic turf and/or lights. A youth diamond complex was recently completely renovated and upgraded. FCPS has also added youth diamond fields as well as made improvements.

SERVICE LEVEL STANDARD RECOMMENDATION: RETAIN CURRENT SL, SOFTBALL 60' = 1 PER 8,800;

BASEBALL 60' = 1 PER 7,200

FCPA CONTRIBUTION STRATEGY: (1) REINVEST; (2) PARTNER

- Invest in fields in adopted master plans
- Complete fields in design/development
- Continue to partner with schools and sports organizations to increase community use of fields through added capacity and scheduling enhancements
- Focus investment on improving conditions on 60' fields, skinned or grassed type (i.e., Youth Baseball or Youth Softball)
- Evaluate youth 60' diamond fields to ensure needs are met and redesign/reallocate for equity and sport need, as appropriate

10.4.19 LOCAL PARKS

Local parks range in size depending on context, typically from 2.5 to 50 acres in suburban settings to ½ to 5 acres in urban settings. This park type serves the day-to-day needs of residents and workers in the county, providing recreational opportunities where people work and live. FCPA provides about two-thirds of the public inventory. Local parks ranked near the top of the survey and were a frequent topic in public input.

Local parks are well distributed across the County but gaps in service exist in some areas of high density population, lower incomes and poorer health. Many older park conditions are of concern and need upgrades to landscapes, infrastructure, and facilities. In urban growth areas, County policy and plans support the integration of local and urban parks into new development as publicly-accessible parks and will help meet needs generated by growth.

SERVICE LEVEL STANDARD RECOMMENDATION: RETAIN CURRENT, 5 ACRES PER 1,000 (SUBURBAN CONTEXT); 1.5 ACRES PER 1,000 (URBAN CONTEXT)

FCPA CONTRIBUTION STRATEGY: (1) REINVEST; (2) ADD

- Reinvest in existing local parks
- Implement master planned local parks
- Continue to provide local and urban park space through the development process to address deficiencies and growth
- Strategically improve service levels, access to parks and maintenance standards
- Expand existing parks through land acquisition as opportunities arise
- Support connectivity in and to local parks
- Preserve open space and resources

10.4.20 DISTRICT/COUNTYWIDE PARKS

District and countywide parks provide a wide variety of park facilities and range in size from 50 acres up to and in excess of 150 acres. These parks offer athletic fields, playgrounds, amusements, lakefront features, historic and natural resources, and other specialty destination features. These parks also support one of the most desired programming opportunities - special events. Adequate parking, support facilities and amenities, and clustered complexes are desirable in these parks and sometimes deficiencies limit the park's recreation potential. Facilities at these parks can be significant revenue generators for FCPA. When added to the large Countywide and regional parks held by regional, state, and federal agencies in the County and much of which exists in natural areas or is held for resource protection, FCPA provides one-quarter of the public inventory. (County resource-based parks are counted separately in the inventory.) District and countywide parks ranked in the top third of the survey and were frequently described in public input. Park usage in these larger County parks is a significant percentage served by FCPA.

SERVICE LEVEL STANDARD RECOMMENDATION: RETAIN CURRENT, 13 ACRES PER 1,000

FCPA CONTRIBUTION STRATEGY: (1) MAINTAIN; (2) REINVEST/EXPAND (3) MANAGE

- Continue to maintain, reinvest and expand facilities for these park types
- Update and build out master plans strategically



- Expand existing parks as opportunities exist
- Support and enhance connectivity to and within these parks
- Expand District and Countywide Park trail systems
- Preserve, protect and manage natural and cultural resources

10.4.21 RESOURCE BASED PARKS

Resource-based parks are a significant element of the county’s park system. Stream valleys, resource protection zones and historic sites are examples of assets that comprise resource-based parks. Similar to trails, resource based parks are part of a larger network (i.e. greenway corridors) or specific location (i.e. historic buildings/property). Provision of resource based parks should focus on factors like improving condition, access, and quality and not population based equity.

SERVICE LEVEL STANDARD RECOMMENDATION: NA

FCPA CONTRIBUTION STRATEGY: (1) MAINTAIN; (2) MONITOR

- Preserve, protect, and manage natural and cultural resources
- Continue to monitor the quality and condition of these park types

10.4.22 SERVICE LEVEL STANDARDS AND CONTRIBUTION LEVELS SUMMARY

The following table summarizes the recommended service level standards and FCPA contribution levels recommendations.

Park System Element	FCPA Contribution Strategies
Local Parks	(1) Reinvest; (2) Add
Playgrounds	(1) Reinvest; (2) Maintain
Outdoor Sport Courts (basketball/tennis)	(1) Upgrade; (2) Construct; (3) Adapt
Skate Parks, Neighborhood	(1) Build; (2) Maintain; (3) Study
Dog Parks, Neighborhood	(1) Build; (2) Implement
District & Countywide Parks	(1) Maintain; (2) Reinvest/Expand; (3) Manage
Indoor Gyms	(1) Maintain; (2) Study
Diamond, Baseball 60 ft Fields (Youth)	(1) Reinvest; (2) Partner
Diamond, Baseball 90 ft Fields (Youth, Adult)	(1) Build Complex; (2) Partner
Diamond, Softball 60 ft Fields (Youth)	(1) Reinvest; (2) Partner
Diamond, Softball 65 ft Fields (Adult)	(1) Supplement; (2) Improve; (3) Partner
Rectangle Fields (All)	(1) Reinvest; (2) Supplement; (3) Partner
Skate Parks, Countywide	(1) Build; (2) Maintain; (3) Study
Golf	(1) Reinvest; (2) Monitor
Trails	(1) Reinvest; (2) Connect; (3) Partner
Equestrian Facilities	(1) Maintain; (2) Partner
Waterfront Parks	(1) Maintain; (2) Reinvest
Outdoor Family Aquatics	(1) Maintain; (2) Monitor
Resource Based Parks	(1) Maintain; (2) Monitor
Horticulture Parks	(1) Improve; (2) Implement; (3) Partner
Nature Centers	(1) Upgrade/reinvest; (2) Partner; (3) Utilize alternative spaces

CHAPTER ELEVEN - CAPITAL IMPROVEMENTS

11.1 RECOMMENDED CAPITAL IMPROVEMENT FRAMEWORK

This section of the plan reflects the capital improvement recommendations that are necessary to fulfill the park and facility needs of the community. In order to plan and prioritize capital investments for a balanced park system, the Consulting Team recommends that FCPA utilize a Capital Improvement Framework (CIF). This framework takes a comprehensive view of the park system assessments and community needs and provides prioritization guidance for sustainable capital investment decisions in the next decade. Priorities are focused on maintaining the integrity of the current infrastructure and facilities before expanding and/or enhancing programs and facilities.

FCPA, through this planning process, has indicated strong support for this concept of prioritization. Community input and preferences have also favored this approach. Funding constraints will further limit FCPA's ability to address all the facility and community needs and emphasizes the need for wise capital investment guided by this framework.

The recommended capital improvement framework includes three-tiers of capital investment needs: Critical (Repairing existing park assets); Sustainable (Improving existing park assets) and Visionary (developing new park assets/opportunities).

1. **Critical Projects (“Repairing what we have”)** has plans for prioritized spending to fix, repair and replace system wide facilities that pose safety risks, are legally mandated and/or are in fair, failing or near failing condition. These projects seek to address the results of continued deferred maintenance and reinvestment for gaining facilities across the system. Critical reinvestments help refocus capital resources on the most critical items to maintain core services.
- **Sustainable Projects (“Improving what we have”)** describes the extra services or capital improvement that should be undertaken when funding is available. This includes strategically enhancing existing programs, beginning new alternative programs, or making other strategic changes that would require additional operational or capital funding. In coordination with the County, Park Authority Board, and Board of Supervisors, FCPA would evaluate and analyze additional potential funding sources, including but not limited to capital bond funding, revenue enhancements, partnerships, grants, and existing or new taxes.
- **Visionary Projects (“Developing new opportunities”)** represents the complete set of services and facilities desired by the community. It is fiscally unconstrained but can help provide policy guidance by illustrating the ultimate goals of the community, and by providing a long -range look to address future needs and deficiencies. In this Needs Assessment, the Vision Alternative addresses aging facilities to make improvements in operational effectiveness and the overall sustainability of the park and recreation system. Funding for vision projects would be derived from partnerships, private investments and new tax dollars.

Available capital funding should be prioritized for critical projects in the CIF recognizing that full funding needs will be constrained and some non-critical needs also need to be addressed in the next decade. Non-critical facility conditions continue to wear and may become critical over the next 10 years. Monitoring system wide asset conditions and lifecycle replacement schedules will support periodic CIF adjustments and should become a regular activity of FCPA's asset management process. Sustainable facility improvements and upgrades throughout the system will also be important and need to be balanced and funded strategically to ensure a high quality and relevant park system. Implementing park master plans, addressing expanded and emerging needs across the park system



represent the visionary projects in the CIF and need to be strategically considered in capital investment decisions. Capital projects in the CIF are scheduled through 2025 in five year increments, years 1-5 and years 6-10. Critical projects are primarily scheduled in the next five years based on the critical need. Sustainable projects are prioritized and scheduled in both time increments. Visionary projects are mostly identified for years 6-10 with some nearer term projects scheduled in years 1-5 that may have capital or partnership funding allocated or address a significant community need.

11.210 YEAR CAPITAL IMPROVEMENT FRAMEWORK

The 10 year capital improvement framework was developed after evaluating the RECenter natural resource and cultural resource assessments conducted, lifecycle schedules and FCPA identified capital projects. Factors also considered included community values and needs, service level deficiencies, operational cost and revenue impacts, health and safety, regulatory requirements, and FCPA mission-oriented priorities.

The following pages summarize the recommended capital improvement for the three-tier CIF. A detailed listing of the CIF can be found in Appendix G of this report.

11.2.1 CRITICAL PHASE RECOMMENDATIONS – UPGRADING EXISTING SYSTEM

The table below summarizes the critical projects and asset category costs that focus on the repair and maintenance of existing facilities and amenities. Please Note: All projects identified for the Critical Phase are to be completed within the first five years.

Asset	Time Frame	Critical
Athletic Fields	1-5 Years	\$19,775,000
District & Countywide Parks	1-5 Years	\$0
Golf	1-5 Years	\$591,000
Grant	1-5 Years	\$0
Historic Sites	1-5 Years	\$8,772,000
Horticulture Parks	1-5 Years	\$366,000
Infrastructure	1-5 Years	\$10,792,000
Lakefront Parks	1-5 Years	\$0
Local Parks	1-5 Years	\$0
Multi-Use Courts	1-5 Years	\$9,186,000
Nature Centers	1-5 Years	\$1,269,000
Outdoor Family Aquatics	1-5 Years	\$425,000
Picnic Shelters	1-5 Years	\$5,579,000
Playgrounds	1-5 Years	\$25,327,000
Recreation Centers	1-5 Years	\$61,256,000
Resource Based Parks	1-5 Years	\$5,483,000
Skate Parks	1-5 Years	\$738,000
Trails	1-5 Years	\$6,367,000
GRAND TOTAL		\$155,926,000

11.2.2 SUSTAINABLE PHASE RECOMMENDATIONS – IMPROVING WHAT WE HAVE

Projects summarized in the table below provide the extra services or capital improvement that could be undertaken when funding is available to meet need(s) with a focus on enhancements to existing facilities.

Asset	Time Frame	Sustainable
Athletic Fields	1-5 Years	\$0
District & Countywide Parks	1-5 Years	\$3,225,000
Golf	1-5 Years	\$8,731,000
Grant	1-5 Years	\$430,000
Historic Sites	1-5 Years	\$13,975,000
Horticulture Parks	1-5 Years	\$0
Infrastructure	1-5 Years	\$24,191,000
Lakefront Parks	1-5 Years	\$5,375,000
Local Parks	1-5 Years	\$5,375,000
Multi-Use Courts	1-5 Years	\$0
Nature Centers	1-5 Years	\$5,762,000
Outdoor Family Aquatics	1-5 Years	\$0
Picnic Shelters	1-5 Years	\$0
Playgrounds	1-5 Years	\$0
Recreation Centers	1-5 Years	\$36,139,000
Resource Based Parks	1-5 Years	\$0
Skate Parks	1-5 Years	\$0
Trails	1-5 Years	\$4,742,000
SUB-TOTAL	1-5 Years	\$107,945,000
Athletic Fields	6-10 Years	\$14,883,000
District & Countywide Parks	6-10 Years	\$13,613,000
Golf	6-10 Years	\$6,897,000
Grant	6-10 Years	\$484,000
Historic Sites	6-10 Years	\$13,794,000
Horticulture Parks	6-10 Years	\$3,630,000
Infrastructure	6-10 Years	\$15,004,000
Lakefront Parks	6-10 Years	\$30,250,000
Local Parks	6-10 Years	\$8,470,000
Nature Centers	6-10 Years	\$605,000
Outdoor Family Aquatics	6-10 Years	\$0
Picnic Shelters	6-10 Years	\$0
Playgrounds	6-10 Years	\$12,316,000
Recreation Centers	6-10 Years	\$46,791,000
Resource Based Parks	6-10 Years	\$0
Skate Parks	6-10 Years	\$0
Trails	6-10 Years	\$5,613,000
SUB-TOTAL	6-10 Years	\$172,350,000
GRAND TOTAL		\$280,295,000



11.2.3 VISIONARY PROJECT RECOMMENDATIONS—DEVELOPING NEW OPPORTUNITIES

Recommendations described in this section represent the new and expanded facilities to fully meet needs desired by the community and ensure FCPA remains a preferred provider of park and recreation amenities. The following new development and redevelopment projects have been identified as relevant to the interests and needs of the community and are relevant to FCPA’s focus because they feature a high probability of success.

Asset	Time Frame	Visionary
Athletic Fields	1-5 Years	\$18,964,000
District & Countywide Parks	1-5 Years	\$3,226,000
Golf	1-5 Years	\$0
Grant	1-5 Years	\$538,000
Historic Sites	1-5 Years	\$0
Horticulture Parks	1-5 Years	\$0
Infrastructure	1-5 Years	\$5,375,000
Lakefront Parks	1-5 Years	\$1,075,000
Local Parks	1-5 Years	\$0
Multi-Use Courts	1-5 Years	\$0
Nature Centers	1-5 Years	\$0
Outdoor Family Aquatics	1-5 Years	\$0
Picnic Shelters	1-5 Years	\$2,924,000
Playgrounds	1-5 Years	\$538,000
Recreation Centers	1-5 Years	\$0
Resource Based Parks	1-5 Years	\$0
Skate Parks	1-5 Years	\$1,613,000
Trails	1-5 Years	\$2,945,000
SUB-TOTAL	1-5 Years	\$37,198,000
Athletic Fields	6-10 Years	\$21,747,000
District & Countywide Parks	6-10 Years	\$267,688,000
Golf	6-10 Years	\$774,000
Grant	6-10 Years	\$605,000
Historic Sites	6-10 Years	\$31,460,000
Horticulture Parks	6-10 Years	\$0
Infrastructure	6-10 Years	\$8,140,000
Lakefront Parks	6-10 Years	\$0
Local Parks	6-10 Years	\$15,231,000
Nature Centers	6-10 Years	\$0
Outdoor Family Aquatics	6-10 Years	\$3,630,000
Picnic Shelters	6-10 Years	\$987,000
Playgrounds	6-10 Years	\$605,000
Recreation Centers	6-10 Years	\$76,133,000
Resource Based Parks	6-10 Years	\$26,751,000
Skate Parks	6-10 Years	\$1,815,000
Trails	6-10 Years	\$10,176,000
SUB-TOTAL	6-10 Years	\$465,742,000
GRAND TOTAL		\$502,940,000

11.3 10 YEAR CAPITAL IMPROVEMENT PLAN SUMMARY

The following table summarizes the recommended 10 year Capital Improvement Plan. Full detailed CIF can be found in the Appendix.

Asset	Time Frame	Critical	Sustainable	Visionary	TOTAL
Athletic Fields	1-5 Years	\$19,775,000	\$0	\$18,964,000	\$38,739,000
District & Countywide Parks	1-5 Years	\$0	\$3,225,000	\$3,226,000	\$6,451,000
Golf	1-5 Years	\$591,000	\$8,731,000	\$0	\$9,322,000
Grant	1-5 Years	\$0	\$430,000	\$538,000	\$968,000
Historic Sites	1-5 Years	\$8,772,000	\$13,975,000	\$0	\$22,747,000
Horticulture Parks	1-5 Years	\$366,000	\$0	\$0	\$366,000
Infrastructure	1-5 Years	\$10,792,000	\$24,191,000	\$5,375,000	\$40,358,000
Lakefront Parks	1-5 Years	\$0	\$5,375,000	\$1,075,000	\$6,450,000
Local Parks	1-5 Years	\$0	\$5,375,000	\$0	\$5,375,000
Multi-Use Courts	1-5 Years	\$9,186,000	\$0	\$0	\$9,186,000
Nature Centers	1-5 Years	\$1,269,000	\$5,762,000	\$0	\$7,031,000
Outdoor Family Aquatics	1-5 Years	\$425,000	\$0	\$0	\$425,000
Picnic Shelters	1-5 Years	\$5,579,000	\$0	\$2,924,000	\$8,503,000
Playgrounds	1-5 Years	\$25,327,000	\$0	\$538,000	\$25,865,000
Recreation Centers	1-5 Years	\$61,256,000	\$36,139,000	\$0	\$97,395,000
Resource Based Parks	1-5 Years	\$5,483,000	\$0	\$0	\$5,483,000
Skate Parks	1-5 Years	\$738,000	\$0	\$1,613,000	\$2,351,000
Trails	1-5 Years	\$6,367,000	\$4,742,000	\$2,945,000	\$14,054,000
SUB-TOTAL	1-5 Years	\$155,926,000	\$107,945,000	\$37,198,000	\$301,069,000
Athletic Fields	6-10 Years	\$0	\$14,883,000	\$21,747,000	\$36,630,000
District & Countywide Parks	6-10 Years	\$0	\$13,613,000	\$267,688,000	\$281,301,000
Golf	6-10 Years	\$0	\$6,897,000	\$774,000	\$7,671,000
Grant	6-10 Years	\$0	\$484,000	\$605,000	\$1,089,000
Historic Sites	6-10 Years	\$0	\$13,794,000	\$31,460,000	\$45,254,000
Horticulture Parks	6-10 Years	\$0	\$3,630,000	\$0	\$3,630,000
Infrastructure	6-10 Years	\$0	\$15,004,000	\$8,140,000	\$23,144,000
Lakefront Parks	6-10 Years	\$0	\$30,250,000	\$0	\$30,250,000
Local Parks	6-10 Years	\$0	\$8,470,000	\$15,231,000	\$23,701,000
Nature Centers	6-10 Years	\$0	\$605,000	\$0	\$605,000
Outdoor Family Aquatics	6-10 Years	\$0	\$0	\$3,630,000	\$3,630,000
Picnic Shelters	6-10 Years	\$0	\$0	\$987,000	\$987,000
Playgrounds	6-10 Years	\$0	\$12,316,000	\$605,000	\$12,921,000
Recreation Centers	6-10 Years	\$0	\$46,791,000	\$76,133,000	\$122,924,000
Resource Based Parks	6-10 Years	\$0	\$0	\$26,751,000	\$26,751,000
Skate Parks	6-10 Years	\$0	\$0	\$1,815,000	\$1,815,000
Trails	6-10 Years	\$0	\$5,613,000	\$10,176,000	\$15,789,000
SUB-TOTAL	6-10 Years	\$0	\$172,350,000	\$465,742,000	\$638,092,000
GRAND TOTAL		\$155,926,000	\$280,295,000	\$502,940,000	\$939,161,000



CHAPTER TWELVE - FUNDING STRATEGIES

FCPA capital funding has grown over the years but continues to fall short of that needed to maintain and manage its existing assets and sustain its assets in the future. In order to continue to build and maintain the parks and recreation system, additional funding should be pursued for operations and capital improvement projects, such as those presented in this section.

Sustainable funding sources are essential to implementing a capital improvement plan. There is substantial potential for increasing revenues for the parks and recreation system while still providing affordable recreation opportunities.

12.1 EXISTING FCPA CAPITAL FUNDING SOURCES

Primary capital funding sources for the implementation of the FCPA capital improvement plan are identified below.

12.1.1 PARK IMPROVEMENT FUND

This fund accounts for construction projects and improvements of the Authority that are financed primarily by property rentals, telecommunications, developers' contributions, and transfers from the Park Revenue Fund. No annual operating budget is prepared for this fund. These funds are allocated to projects that the Park Authority Board approves.

12.1.2 TELECOMMUNICATION REVENUES

Revenue generated from cell tower leases on Park Authority property. For FY 2016, 20% percent, excluding the Mason District, of the telecommunications revenues funded Natural Resource Management Plan and Cultural Resource Management Plan projects. The remaining 80% of telecommunications revenues funded projects within the district. One hundred percent of Mason District telecommunications revenues will be used for Mason District Park projects.

12.1.3 PARK AUTHORITY BOND

Agencies typically seek park bonds to meet park-related needs. The key is to use debt financing through bonds to address needs that are both unmet and clearly a community priority. It is best to propose a capital-bond project that serves a variety of users and needs. Even in the worst economic downturn, bond issues have been passing because communities are the direct recipient of the money, and it benefits families on a personal basis.

12.1.4 GENERAL COUNTY CONSTRUCTION FUND

This funding source provides for critical park maintenance and repairs, as well as athletic field maintenance on both Park Authority and Fairfax County Public School (FCPS) fields. Funding is also provided for ongoing initiatives such as development and management of the County's Laurel Hill property and Americans with Disabilities Act improvements.

12.1.5 FCPA REVENUE FUND

The Park Revenue Fund, exists to serve the leisure needs of county residents, guests and visitors on a financially self-sustaining basis by managing and operating top quality recreational facilities, services, programs, special events and parks while minimizing general fund support requirements.

12.1.6 ALLOCATION OF BOND PREMIUMS AND REALLOCATION OF PROJECT FUND BALANCES

Allocation of bond premiums and reallocation of capital project fund balances for completed projects to fund recommended projects. For FY 2017, projects include enhancing revenue generating facilities, protecting cultural resources and upgrading infrastructure.

12.1.7 DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES STORMWATER MANAGEMENT PROGRAM

The Fairfax County Department of Public Works and Environmental Services (DPWES) Stormwater Planning Division develops and implements watershed improvement projects including partnership projects with the Park Authority on parkland. These projects help restore degraded park streams and resources.

12.1.8 REVENUE FACILITIES CAPITAL SINKING FUND

The Revenue Facilities Capital Sinking Fund (RFCSF) was established in FY 14 by the Park Authority Board to address renovation, repair and long-term life cycle needs at FCPA's revenue facilities with funding from future net revenue, interest earned, set aside and/or balances from remaining General Park Improvement Projects and Fund 80300 unallocated dollars.

12.1.9 ENERGY MANAGEMENT PLAN

The Park Authority adopted the agency wide FY 2015-17 Energy Management Plan on October 22, 2014. The goals of the Energy Management Plan include reducing energy costs while maximizing services, minimizing the impacts of energy use on the environment, preserving our local and global natural resources, and using renewable resources when feasible.

12.1.10 PARK PROFFERS

Proffers are legally binding voluntary commitments approved by the Board of Supervisors and become part of the zoning district. Proffers received in the form of monetary park contributions are appropriated at the Fiscal Year Carryover Review,

12.1.11 COUNTY GENERAL FUND

The primary tax and operating fund for County Governmental Activities used to account for all County revenues and expenditures which are not accounted for in other funds, and which are used for the general operating functions of County agencies.

12.1.12 FAIRFAX COUNTY PARK FOUNDATION

The Fairfax County Park Foundation supports the Fairfax County Park Authority by raising private funds, obtaining grants and creating partnerships that supplement tax dollars to meet our community's needs for park land, facilities and services.

12.2 ALTERNATIVE FUNDING SOURCES

The Consulting Team recommends FCPA consideration of additional alternative funding sources described below.



12.2.1 CORPORATE AND PERSONAL LEAD GIVING

Corporate and personal giving involves the department seeking corporate lead funds or personal lead gifts via a foundation partner or through personal contacts that are used to catalyze wider giving in support of a specific project or operation. The lead donations set the precedent for additional giving over a period of one year up to five years. Often those who have given or pledged contributions are invited to a recognition event, which may include additional opportunities for contribution through auctions, for example.

12.2.2 DONATIONS

Private donations are a popular form of fundraising by public agencies, particularly for facilities and services that are highly visible and valued by the public. Donations can be channeled through a foundation or conservancy aligned with the parks and recreation system's priorities. Donations can be made through one or more of the following methods:

- Donations of cash to a specific park or trail segment by community members and businesses
- Donations of services by large corporations to reduce the cost of park or trail implementation, including equipment and labor to construct and install elements of a specific park or trail
- Reductions in the cost of materials purchased from local businesses that support parks and trails implementation, and can supply essential products for facilities

12.2.3 ENHANCE ADOPT-A-TRAIL PROGRAMS

These are typically small-grant programs that fund new construction, repair or renovation, maps, trail brochures, and facilities (bike racks, picnic areas, birding equipment, etc.), as well as providing maintenance support. These programs are similar to the popular "adopt-a-mile" highway programs most states utilize. Adopt-a-trail programs can also take the form of cash contributions in the range of \$12,000 to \$16,000 per mile to cover operational costs.

12.2.4 ENHANCE ADOPT-A-PARK PROGRAMS

These are small-grant programs that fund new construction and provide maintenance support. Adopt-A-Park programs can also take the form of cash contributions in the range of \$1,000 to \$5,000 per acre to cover operational costs.

12.2.5 PARTNERSHIPS – DEVELOPMENT AND/OR OPERATION

Partnerships are joint-development funding sources or operational funding sources formed from two separate agencies, such as two government entities, a non-profit and a public agency, or a private business and a public agency. Two partners jointly develop revenue-producing park and recreation facilities and share risk, operational costs, responsibilities, and asset management based on the strengths of each partner.

12.2.6 ADVERTISING SALES

Advertising can occur with trash cans, playgrounds, dog parks, trails, flower pots, and as part of special events to pay for operational costs.

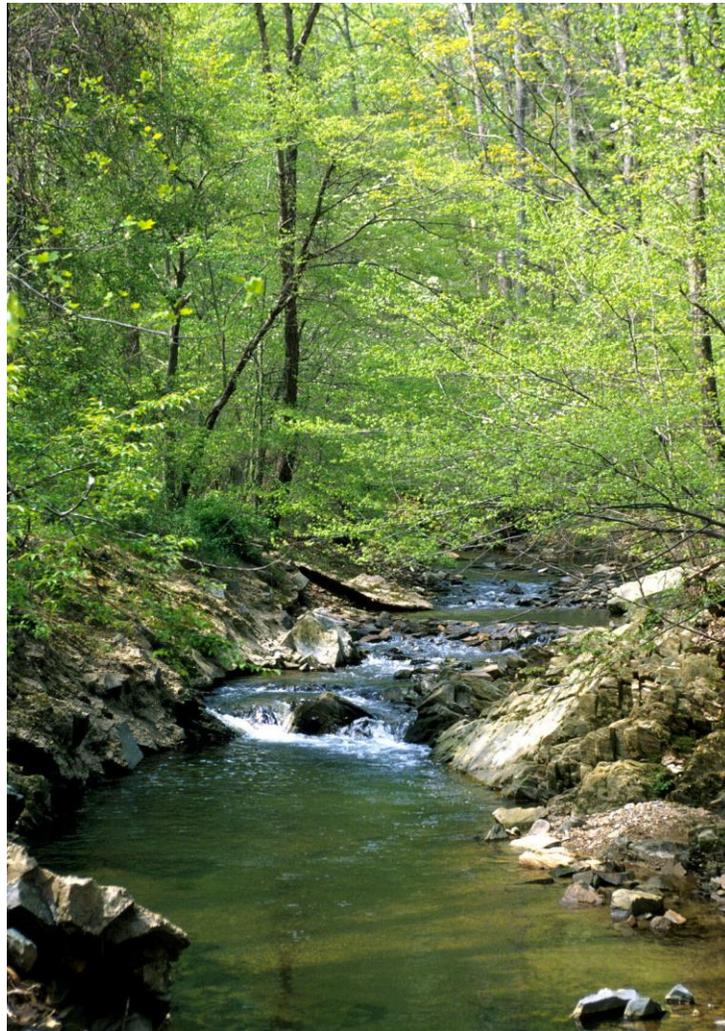
12.2.7 IRREVOCABLE REMAINDER TRUSTS

These trusts are established for individuals who typically have more than \$1 million in wealth. They agree to leave a portion of their wealth to a park-and-recreation system in a trust fund that grows over time. The system is able to use a portion of the interest to support specific facilities or programs that are designated by the trustee.

12.2.8 FACILITIES, IMPROVEMENT, OR BENEFIT DISTRICTS

Many agencies are also a part of regional trails systems that have developed a trails district to meet costs and manage requirements for development and maintenance. Sometimes this includes multiple counties, and usually is funded through a bond issue or various tax initiatives. A facilities or trails district can also provide major impetus for raising external financial support from foundations, individuals, corporate sponsors, and grants, among other sources.

A benefit district is similar to an improvement district and identifies the benefits derived from an improvement. A sales or property tax is then established to support the capital cost associated with the acquisition and development of the property. This approach is usually applied to community parks, regional parks, downtown districts, event plazas, signature parks, and special attractions. The benefit districts are usually in downtown areas or in regions slated for redevelopment.





CHAPTER THIRTEEN – STRATEGY MATRIX AND RECOMMENDATIONS

The consultant synthesized its findings to develop a framework of strategies and recommendations for the Fairfax County Park Authority. The Community Values Model features recommended strategies that align with five major categories of best practices: Community Mandates, Standards, Program/Services, Business Practices, and Community Outreach and Partnerships/Sponsorships.

The Community Values Model should be evaluated and refined as political and economic circumstances shift and be used to validate the vision and mission of FCPA. The strategy matrix links community values to the FCPA strategic plan objectives.

13.1 STRATEGY MATRIX

Community Value	1: Community Mandates	2: Standards	3: Programs and Services	4: Financial and Business Practices	5: Community Outreach and Partnerships/Sponsorships
FCPA Strategic Plan Guiding Vision	Customer Perspective	Business Process Perspective	Business Process Perspective	Financial Perspective	Financial Perspective
FCPA Strategic Plan Objective	Meet the Needs of a Diverse Community	Manage and Protect Facilities and Property	Optimize Programs and Services	Stabilize Funding	Expand Alternative Resources
Recommendation	Renovate and upgrade open spaces, parks, trails and recreational facilities to promote community interaction, healthy lifestyles and safety.	Continually update and utilize best standards for operations and maintenance of parks, trails, and recreational facilities in alignment with Fairfax County policy.	Provide balance and consistency in the delivery of programs and services that meet the needs of the residents of Fairfax County.	Manage parks, trails, and recreational facilities, and programs that support the financial goals and policies of Fairfax County.	Maximize resources through mutually acceptable partnerships that leverage parks, trails, and recreational facility development and program and service opportunities.
Strategies For Working Toward the Recommendation	<ul style="list-style-type: none"> Maintain and enhance the quality of current park sites, facilities, and amenities of the FCPA system Redevelop facilities with equitable access by residents throughout the county and that reflect the ability to serve a diverse public, as well as meeting all ADA-compliance requirements and other special needs. Establish a lifecycle maintenance-improvement plan for parks, recreation, and aquatic facilities. Pursue renovations and new improvements for parks, trails, and recreational facilities in areas of greatest growth and unmet needs Maintain the importance and value of parks and recreation as a FCPA-provided service by organizing events, festivals, and programs that build the community. 	<ul style="list-style-type: none"> Utilize consistent design standards in the development of park and recreational-facility landscaping, amenities, signage, and infrastructure. Develop, implement and utilize best practice maintenance standards. Enhance communications in marketing and promoting County parks, trails, and recreational facilities in order to improve community awareness of programs, services, and facilities, as well as to diversify the use of amenities and expand public-feedback opportunities. Maintain updated standards for asset- and amenity-management in order to maximize and expand their useful lifespan. 	<ul style="list-style-type: none"> Develop and maintain high-quality programs that promote health and wellness, family participation, athletic skills and abilities, life skills, socialization, personal safety, and new experiences based on the recommended standards. Engage residents in programs that build community and reflect its values, especially in connection with special events. Continue to monitor and evaluate services, events, and programs that may be provided to the public and that are either complementary to or competitive with the programs and services of the Fairfax County. Maintain updated standards for asset- and amenity-management in order to maximize and expand their useful lifespan. Provide access to high-quality programs, services, and partnerships/sponsorships that meet the specialized needs of the community's residents. 	<ul style="list-style-type: none"> Develop and maintain high-quality programs that promote health and wellness, family participation, athletic skills and abilities, life skills, socialization, personal safety, and new experiences based on the recommended standards. Engage residents in programs that build community and reflect its values, especially in connection with special events. Continue to monitor and evaluate services, events, and programs that may be provided to the public and that are either complementary to or competitive with the programs and services of the Fairfax County. 	<ul style="list-style-type: none"> Update partnerships/sponsorships with public, non-profit, and for-profit entities. Include strategies for engaging districts and community organizations in helping to maintain park, trails, and recreation facilities, programs, and services. Review and update where necessary terms of agreements with existing partners/sponsors who utilize FCPA parks and facilities for public or private events. Maintain and monitor services provided by FCPA to the county to assure FCPA's local active role in the network of services and opportunities available to residents, organizations, and businesses.

13.2 KEY RECOMMENDATIONS FOR IMPLEMENTING STRATEGY MATRIX

13.2.1 CONDUCT RECENTER SYSTEM-WIDE FEASIBILITY STUDY

Utilizing the prioritized needs and RECenter assessments identified within this report as guides, the Consulting Team recommends that FCPA continue developing and implementing the renewal study that is currently underway. Outcomes of this study will result in the redevelopment of FCPA's RECenters that effectively and efficiently meet the indoor recreation needs of Fairfax County residents.

13.2.2 CONDUCT PARK AMENITY RENEWAL STUDY

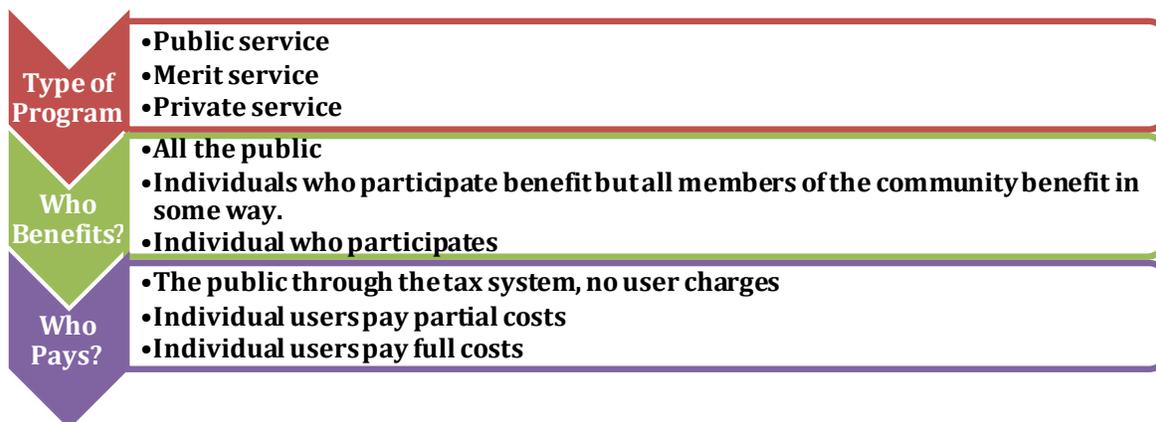
Using the prioritized needs identified within this report and the recently completed Epley Institute Maintenance Management Plan as guides, the Consulting Team recommends that FCPA continue moving forward with the park amenity renewal study that staff initiated in 2014. Outcomes of this study will result in the redevelopment of FCPA's parks amenities that effectively and efficiently meet the outdoor park and recreation needs of Fairfax County residents.

13.2.3 DEVELOP AND IMPLEMENT ASSET MANAGEMENT PROGRAM

The Consulting Team recommends that FCPA establish and facilitate an asset management program including asset management planning, investment and budgeting, and performance measurement and advocacy. The development of customized, first-generation asset management plans by planning district will ensure safe and reliable management of infrastructure and continuous improvement of the asset management program and provide FCPA with an in-depth understanding of the total cost of ownership for the parks system.

13.2.4 CLASSIFY PROGRAMS AND SERVICES

Classifying programs and services is an important process for an agency to follow in order to remain aligned with the community's interests and needs, the mission of the organization, and to sustainably operate within the bounds of the financial resources that support it. The criteria utilized and recommended in program classification stems from the foundational concept detailed by Dr. John Crompton and Dr. Charles Lamb. In *Marketing Government and Social Services*, they purport that programs need to be evaluated on the criteria of type, who benefits, and who bears the cost of the program. This is illustrated below:



The approach taken in this analysis is similar to the fee analysis exercise that FCPA staff completes annually and expands classifying services in the following ways:

- For whom the program is targeted
- For what purpose
- For what benefits
- For what cost
- For what outcome



PARAMETERS FOR CLASSIFYING PROGRAM TYPES

The first milestone is to develop a classification system for the services and functions of FCPA. These systems need to reflect the statutory obligations of the agency, the support functions performed, and the value-added programs that enrich both the customer's experience and generate earned revenues in mission-aligned ways to help support operating costs. In order to identify how the costs of services are supported and by what funding source, the programs are to be classified by their intended purpose and what benefits they provide. Then funding source expectations can then be assigned and this data used in future cost analysis. The results of this process is a summary of classification definitions and criteria, classification of programs offered by FCPA and recommended cost recovery targets for each service based on these assumptions.

Program classification is important as financial performance (cost recovery) goals are established for each category of services. This is then linked to the recommendations and strategies for each program or future site business plan. These classifications need to be organized to correspond with cost recovery expectations defined for each category. In this section of the needs assessment, each program area will be assigned specific cost recovery targets that align with these expectations.

13.2.5 GEOGRAPHICALLY AND DEMOGRAPHICALLY ALIGN THE DELIVERY OF PROGRAMS AND SERVICES

The Consultant Team recommends that FCPA engage in ongoing analysis of the cross tabulation data from the Citizen's Needs Survey, health data made available to the County, and participation trends of programming and services in Fairfax County. By doing so, staff will be able to focus their efforts on offering the programs and services of the greatest need in each of the demographically diverse planning districts across the county and reduce or eliminate programs and services where interest is waning.

13.2.6 DEVELOP AND ADOPT FORMALIZED PROGRAM AND SERVICE STANDARDS

To effectively and efficiently meet the changing recreation needs of Fairfax County residents, it is imperative that service delivery of recreation programs are consistent. The Consulting Team recommends that as FCPA updates its Great Parks, Great Communities Plan, it develop and adopt recreation program standards to support the consistent delivery of core programs and services across the system. The standards focus on delivering a consistent high quality experience while achieving operational and cost recovery goals as well as marketing and communication standards that are needed to create awareness and customer loyalty. A template of program standards is provided in the Appendix of the report.

13.2.7 MEASURE ECONOMIC IMPACT

Economic impacts are effects on the level of economic activity in a given area. They may be viewed in terms of: (1) business output (or sales volume), (2) value added (or gross regional product), (3) wealth (including property values), (4) personal income (including wages), or (5) jobs. Any of these measures can be an indicator of improvement in the economic well-being of area residents, which is usually the major goal of economic development efforts.

The net economic impact is usually viewed as the expansion or contraction of an area's economy, resulting from changes in a facility, project or program. Sometimes there is also interest in assessing the economic impact of an already existing facility or project. This is usually viewed in terms of the jobs, income and/or business sales that are directly or indirectly supported by the facility or project. Such

measures actually represent the gross effect -- i.e., the facility's or project's role in (or contribution to) the area economy. That is not necessarily the same as the net impact, particularly if other activities would be expected to enter or expand in the absence of this facility or project.

Economic impacts are different from the valuation of individual user benefits of a particular facility or service, and they are also different from broader social impacts. The user benefits and social impacts may include the valuation of changes in amenity or quality of life factors (such as health, safety, recreation, air or noise quality). Yet while these various types of benefits and impacts may be valued in economic (money) terms, through studies of individuals' or society's "willingness to pay" for improving them, they are not economic impacts (as defined above) except insofar as they also affect an area's level of economic activity.

Economic impacts also lead to fiscal impacts, which are changes in government revenues and expenditures. Economic impacts on total business sales, wealth or personal income can affect government revenues by expanding or contracting the tax base. Impacts on employment and associated population levels can affect government expenditures by changing demand for public services. Yet while they are related, fiscal impacts are not the same as economic impacts.

The consulting team recommends that the FCPA measure the impact that its facilities, parks and programs has on Fairfax County's economy and report the results to the Park Authority Board and the Fairfax County Board of Supervisors.





CHAPTER FOURTEEN - CONCLUSION

The Needs Assessment Report provides the Park Authority with very valuable information. Using the public input, a comprehensive facilities inventory, and other data analyses, a sophisticated fiscal model in the form of a Capital Improvement Plan has been developed. This will guide resource allocation for the next 10 years. Options to supplement current funding sources were identified and applied uniquely to the FCPA for future consideration. With these tools, informed Park Authority Board members can make better decisions about the future of the County's park and recreation system.

Report results will be used to build future bond programs, guide agency submissions to the County's needs-based Capital Improvement Program, amend the County's Comprehensive Plan, respond to the agency's Strategic Planning initiatives, and support proffer negotiations for park impacts from new development. This is a foundation report for 10 years of fiscal and strategic planning.

The Park Authority staff and consulting team developed the Needs Assessment process to guide future actions necessary for a proactive organization that responds to the community needs within its means. Fairfax County residents have consistently demonstrated their desire to build a first class park system through approval of park bond referendums. They expect a park organization that is responsive, effective and efficient while meeting their park and recreation needs. While Fairfax County has a national reputation for its high quality of life and its superior park system, the Board must not become complacent about the current condition of the Park Authority concerning operational resource needs and the recreation needs of future generations.

Needs for open space, passive, and active recreation will be at the forefront of residents' minds as the Fairfax County population continues to grow. The services provided by the Park Authority are highly valued by the public, though overall satisfaction has declined. There are public concerns about developing new park facilities in a timely fashion, the condition of the existing infrastructure with declining maintenance standards, and the need to acquire, protect and preserve parkland and open space in the County. These are all perceived park and recreation needs that the citizens expect will be satisfied within the next ten years.



APPENDIX A – RECREATION TRENDS ANALYSIS

NATIONAL TRENDS IN GENERAL SPORTS

The sports with the most participation in 2014 were golf (24.7 million) and basketball (23.1 million). While both of these activities have seen declining participation levels in recent years, the number of participants for each activity are well above the other activities in the general sports category. The popularity of golf and basketball can be attributed to the ability to compete with relatively small number of participants. Golf also benefits from its wide age segment appeal, and is considered a life-long sport. Basketball's success can also be attributed to the limited amount of equipment needed to participate and the limited space requirements necessary, which make basketball the only traditional sport that can be played at the majority of American dwellings as a drive-way pickup game.

As seen in the table below, since 2009, squash and other niche sports, including lacrosse and rugby, have seen strong growth. Squash has emerged as the overall fastest growing sport; it has seen participation levels rise by 100% over the last five years. Based on survey findings from 2009-2014, rugby and lacrosse have also experienced significant growth, increasing by 77% and 73%, respectively. Other sports with notable growth in participation over the last five years were field hockey (42.6%), roller hockey (21.7%), ice hockey (20%), gymnastics (16.9%), and cheerleading (12.6%). In the last year, the fastest growing sports were roller hockey (33.7%), squash (12.9%), competition boxing (12.7%), lacrosse (10.9%), and rugby (7.9%). During the last five years, the sports that are most rapidly declining include wrestling (40.3% decrease), touch football (32.3% decrease), and racquetball (24.9% decrease).



In terms of total participants, the most popular activities in the general sports category in 2014 included golf (24.7 million), basketball (23 million), tennis (17.9 million), baseball (13.1 million), and outdoor soccer (12.6 million). Although four out of five of these sports have been declining in recent years, the sheer number of participants demands the continued support of these activities.

National Participatory Trends - General Sports					
Activity	Participation Levels			% Change	
	2009	2013	2014	13-14	09-14
Golf	27,103	24,720	24,700	-0.1%	-8.9%
Basketball	25,131	23,669	23,067	-2.5%	-8.2%
Tennis	18,546	17,678	17,904	1.3%	-3.5%
Baseball	14,429	13,284	13,152	-1.0%	-8.9%
Soccer (Outdoor)	13,957	12,726	12,592	-1.1%	-9.8%
Badminton	7,469	7,150	7,176	0.4%	-3.9%
Softball (Slow Pitch)	9,180	6,868	7,077	3.0%	-22.9%
Football, Touch	9,726	7,140	6,586	-7.8%	-32.3%
Volleyball (Court)	7,737	6,433	6,304	-2.0%	-18.5%
Football, Tackle	7,243	6,165	5,978	-3.0%	-17.5%
Football, Flag	6,932	5,610	5,508	-1.8%	-20.5%
Volleyball (Sand/Beach)	4,324	4,769	4,651	-2.5%	7.6%
Gymnastics	3,952	4,972	4,621	-7.1%	16.9%
Soccer (Indoor)	4,825	4,803	4,530	-5.7%	-6.1%
Ultimate Frisbee	4,636	5,077	4,530	-10.8%	-2.3%
Track and Field	4,480	4,071	4,105	0.8%	-8.4%
Racquetball	4,784	3,824	3,594	-6.0%	-24.9%
Cheerleading	3,070	3,235	3,456	6.8%	12.6%
Pickleball	N/A	N/A	2,462	N/A	N/A
Softball (Fast Pitch)	2,476	2,498	2,424	-3.0%	-2.1%
Ice Hockey	2,018	2,393	2,421	1.2%	20.0%
Lacrosse	1,162	1,813	2,011	10.9%	73.1%
Wrestling	3,170	1,829	1,891	3.4%	-40.3%
Roller Hockey	1,427	1,298	1,736	33.7%	21.7%
Squash	796	1,414	1,596	12.9%	100.5%
Field Hockey	1,092	1,474	1,557	5.6%	42.6%
Boxing for Competition	N/A	1,134	1,278	12.7%	N/A
Rugby	720	1,183	1,276	7.9%	77.2%
NOTE: Participation figures are in 000's for the US population ages 6 and over					
	Large Increase (greater than 25%)	Moderate Increase (0% to 25%)	Moderate Decrease (0% to -25%)	Large Decrease (less than -25%)	

NATIONAL TRENDS IN AQUATIC ACTIVITY

Swimming is unquestionably a lifetime sport, and activities in aquatics have remained very popular among Americans. Fitness swimming is the absolute leader in multigenerational appeal with over 25 million reported participants in 2013. (NOTE: In 2011, the survey broke recreational swimming into competition and fitness categories in order to better identify key trends.)

Aquatic exercise has a strong participation base, and has recently experienced an upward trend. Aquatic exercise has paved the way for a less stressful form of physical activity, allowing similar gains and benefits to land-based exercise, including aerobic fitness, resistance training, flexibility, and better balance. Doctors have begun recommending aquatic exercise for injury rehabilitation, mature patients, and patients with bone or joint problems due to the significant reduction of stress placed on weight-bearing joints, bones, muscles, and also the effect of the water in reducing swelling of injuries.

National Participatory Trends - Aquatics					
Activity	Participation Levels			% Change	
	2009	2013	2014	13-14	09-14
Swimming (Fitness)	N/A	26,354	25,304	-4.0%	N/A
Aquatic Exercise	8,965	8,483	9,122	7.5%	1.8%
Swimming (Competition)	N/A	2,638	2,710	2.7%	N/A
NOTE: Participation figures are in 000's for the US population ages 6 and over					
	Large Increase (greater than 25%)	Moderate Increase (0% to 25%)	Moderate Decrease (0% to -25%)	Large Decrease (less than -25%)	



NATIONAL TRENDS IN GENERAL FITNESS ACTIVITIES

National participatory trends in fitness activities have experienced some strong growth in recent years. Many of these activities have become popular due to an increased interest among people to improve their health by engaging in an active lifestyle. These activities also have very few barriers to entry, which provides a variety of activities that are relatively inexpensive and can be performed by nearly anyone with no time restrictions.

The most popular fitness activity by far is fitness walking, which had over 112.5 million participants in 2013, which was a 2.9% increase from the previous year. Other leading fitness activities based on number of participants include running/jogging (51 million), treadmill (50 million), hand weights (42 million), and weight/resistant machines (36 million).

Over the last five years, the activities that grew most rapidly were off-road triathlons (up 123%), road triathlons (up 92%), trail running (up 55%), high impact aerobics (up 55%), and yoga (up 33%). Most recently, from 2013-2014, the largest gains in participation were high impact aerobics (up 14%), trail running (up 11%), and barre (up 10%).

National Participatory Trends - General Fitness					
Activity	Participation Levels			% Change	
	2009	2013	2014	13-14	09-14
Fitness Walking	110,882	117,351	112,583	-4.1%	1.5%
Running/Jogging	42,511	54,188	51,127	-5.6%	20.3%
Treadmill	50,395	48,166	50,241	4.3%	-0.3%
Free Weights (Hand Weights)	N/A	43,164	41,670	-3.5%	N/A
Weight/Resistant Machines	39,075	36,267	35,841	-1.2%	-8.3%
Stationary Cycling (Recumbent/Upright)	36,215	35,247	35,693	1.3%	-1.4%
Stretching	36,299	36,202	35,624	-1.6%	-1.9%
Free Weights (Dumbbells)	N/A	32,209	30,767	-4.5%	N/A
Elliptical Motion Trainer	25,903	27,119	28,025	3.3%	8.2%
Free Weights (Barbells)	26,595	25,641	25,623	-0.1%	-3.7%
Yoga	18,934	24,310	25,262	3.9%	33.4%
Calisthenics/Bodyweight Exercise	N/A	N/A	22,390	N/A	N/A
Aerobics (High Impact)	12,771	17,323	19,746	14.0%	54.6%
Stair Climbing Machine	13,653	12,642	13,216	4.5%	-3.2%
Pilates Training	8,770	8,069	8,504	5.4%	-3.0%
Stationary Cycling (Group)	6,762	8,309	8,449	1.7%	24.9%
Trail Running	4,845	6,792	7,531	10.9%	55.4%
Cross-Training	N/A	6,911	6,774	-2.0%	N/A
Cardio Kickboxing	5,500	6,311	6,747	6.9%	22.7%
Martial Arts	6,643	5,314	5,364	0.9%	-19.3%
Boxing for Fitness	N/A	5,251	5,113	-2.6%	N/A
Tai Chi	3,315	3,469	3,446	-0.7%	4.0%
Barre	N/A	2,901	3,200	10.3%	N/A
Triathlon (Traditional/Road)	1,148	2,262	2,203	-2.6%	91.9%
Triathlon (Non-Traditional/Off Road)	634	1,390	1,411	1.5%	122.6%

NOTE: Participation figures are in 000's for the US population ages 6 and over

Legend:	Large Increase (greater than 25%)	Moderate Increase (0% to 25%)	Moderate Decrease (0% to -25%)	Large Decrease (less than -25%)
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NATIONAL TRENDS IN OUTDOOR RECREATION

Results from the Participation Report demonstrate increased popularity among Americans in numerous outdoor recreational activities. Much like the general fitness activities, these activities encourage an active lifestyle, can be performed individually or with a group. In 2014, the most popular activities in the outdoor recreation category included road bicycling (40 million participants), day hiking (36 million), and camping within ¼ mile of vehicle/home (29 million). Over the last year, adventure racing (up 13%), backpacking overnight (up 11.4%), and BMX bicycling (up 8.4%) experienced the largest gains in participants.

From 2009-2014, outdoor recreation activities that have undergone large increases were adventure racing (up 135.6%), backpacking overnight (up 30.2%), and BMX bicycling (up 26.5%). Over the same time frame, activities declining most rapidly were in-line roller skating (down 32.2%), camping within ¼ mile of home/vehicle (down 15.7%), and recreational vehicle camping (down 13.8%).

National Participatory Trends - Outdoor Recreation					
Activity	Participation Levels			% Change	
	2009	2013	2014	13-14	09-14
Bicycling (Road)	39,127	40,888	39,725	-2.8%	1.5%
Hiking (Day)	32,542	34,378	36,222	5.4%	11.3%
Camping (< 1/4 Mile of Vehicle/Home)	34,012	29,269	28,660	-2.1%	-15.7%
Wildlife Viewing (>1/4 Mile of Home/Vehicle)	22,702	21,359	21,110	-1.2%	-7.0%
Camping (Recreational Vehicle)	16,977	14,556	14,633	0.5%	-13.8%
Birdwatching (>1/4 mile of Vehicle/Home)	13,847	14,152	13,179	-6.9%	-4.8%
Backpacking Overnight	7,757	9,069	10,101	11.4%	30.2%
Bicycling (Mountain)	7,367	8,542	8,044	-5.8%	9.2%
Skateboarding	7,580	6,350	6,582	3.7%	-13.2%
Roller Skating, In-Line	8,942	6,129	6,061	-1.1%	-32.2%
Climbing (Sport/Indoor/Boulder)	4,541	4,745	4,536	-4.4%	-0.1%
Climbing (Traditional/Ice/Mountaineering)	2,062	2,319	2,457	6.0%	19.2%
Adventure Racing	1,005	2,095	2,368	13.0%	135.6%
Bicycling (BMX)	1,858	2,168	2,350	8.4%	26.5%
NOTE: Participation figures are in 000's for the US population ages 6 and over					
	Large Increase (greater than 25%)	Moderate Increase (0% to 25%)	Moderate Decrease (0% to -25%)	Large Decrease (less than -25%)	



NATIONAL TRENDS IN HUNTING / FISHING ACTIVITIES

Activities related to hunting and fishing have seen strong participation growth in recent years. In 2014, the most popular of these activities in terms of total participants were freshwater fishing (38 million), target shooting with a handgun (14 million), and target shooting with a rifle (13 million).

Activities experiencing the most rapid growth from 2013-2015 include kayak fishing (up 15.4%), archery (up 10.3%), and hunting with a bow (up 8.1%). Examining growth trends over the last five years, activities with the highest rate of growth were archery (up 32.5%), hunting with a handgun (up 20.0%), and target shooting with a handgun (up 11.7%). Over the last five years, the only activities that underwent a decrease in participation were saltwater fishing (down 9.5%), hunting with a shotgun (down 8.3%), freshwater fishing (down 7%), and hunting with a rifle (down 6%).

National Participatory Trends - Hunting / Fishing Activities					
Activity	Participation Levels			% Change	
	2009	2013	2014	13-14	09-14
Fishing (Freshwater)	40,646	37,796	37,821	0.1%	-7.0%
Target Shooting (Handgun)	12,919	14,370	14,426	0.4%	11.7%
Target Shooting (Rifle)	12,916	13,023	13,029	0.0%	0.9%
Fishing (Saltwater)	13,054	11,790	11,817	0.2%	-9.5%
Hunting (Rifle)	10,729	9,792	10,081	3.0%	-6.0%
Archery	6,368	7,647	8,435	10.3%	32.5%
Hunting (Shotgun)	8,611	7,894	7,894	0.0%	-8.3%
Fishing (Fly)	5,755	5,878	5,842	-0.6%	1.5%
Shooting (Sport Clays)	4,232	4,479	4,645	3.7%	9.8%
Hunting (Bow)	3,974	4,079	4,411	8.1%	11.0%
Shooting (Trap/Skeet)	3,519	3,784	3,837	1.4%	9.0%
Hunting (Handgun)	2,575	3,198	3,091	-3.3%	20.0%
Kayak Fishing	N/A	1,798	2,074	15.4%	N/A
NOTE: Participation figures are in 000's for the US population ages 6 and over					
	Large Increase (greater than 25%)	Moderate Increase (0% to 25%)	Moderate Decrease (0% to -25%)	Large Decrease (less than -25%)	

NATIONAL TRENDS IN WATER SPORTS / ACTIVITIES

The most popular water sports / activities based on total participants in 2014 were canoeing (10 million), recreational kayaking (8.9 million), and snorkeling (8.8 million). In 2015, activities experiencing the greatest increase in participation included stand-up paddling (up 38%), boardsailing / windsurfing (up 18%), and white water kayaking (up 9.6%).

Over the last five years, white water kayaking (up 80%), sea / touring kayaking (up 64%), recreational kayaking (up 42.2%), and boardsailing / windsurfing (up 28.2%) all experienced large gains in participation. From 2009-2014, activities declining most rapidly were water skiing (down 23.4%), jet skiing (down 18.2%), and rafting (down 15.7%).

National Participatory Trends - Water Sports / Activities					
Activity	Participation Levels			% Change	
	2009	2013	2014	13-14	09-14
Canoeing	9,997	10,153	10,044	-1.1%	0.5%
Kayaking (Recreational)	6,226	8,716	8,855	1.6%	42.2%
Snorkeling	9,827	8,700	8,752	0.6%	-10.9%
Jet Skiing	7,770	6,413	6,355	-0.9%	-18.2%
Water Skiing	5,228	4,202	4,007	-4.6%	-23.4%
Sailing	4,284	3,915	3,924	0.2%	-8.4%
Rafting	4,485	3,836	3,781	-1.4%	-15.7%
Scuba Diving	2,970	3,174	3,145	-0.9%	5.9%
Wakeboarding	3,561	3,316	3,125	-5.8%	-12.2%
Kayaking (Sea/Touring)	1,776	2,694	2,912	8.1%	64.0%
Stand-Up Paddling	N/A	1,993	2,751	38.0%	N/A
Surfing	2,505	2,658	2,721	2.4%	8.6%
Kayaking (White Water)	1,306	2,146	2,351	9.6%	80.0%
Boardsailing/Windsurfing	1,218	1,324	1,562	18.0%	28.2%
NOTE: Participation figures are in 000's for the US population ages 6 and over					
	Large Increase (greater than 25%)	Moderate Increase (0% to 25%)	Moderate Decrease (0% to -25%)	Large Decrease (less than -25%)	



NATIONAL TRENDS IN WINTER SPORTS

Assessing participation in snow sports, we find strong growth in the most recent year, as all activities in the category increased from 2013-2014. The most popular winter sports in 2014 were alpine / downhill skiing (8.6 million), snowboarding (6.8 million), and freestyle skiing (4.6 million). Telemarking (up 26.3%), snowshoeing (up 16.2%), and freestyle skiing (up 13.9%) reported the strongest participation growth in the last year.

Analyzing the five year trends, freestyle skiing (up 54.7%), telemarking (up 47.6%), and snowshoeing (up 2%) were the three activities that experienced growth. On the other hand, alpine / downhill skiing (down 20.8%), snowboarding (down 8.6%), and cross-country skiing (down 8.1%) all reported a decline in participation from 2009-2014.

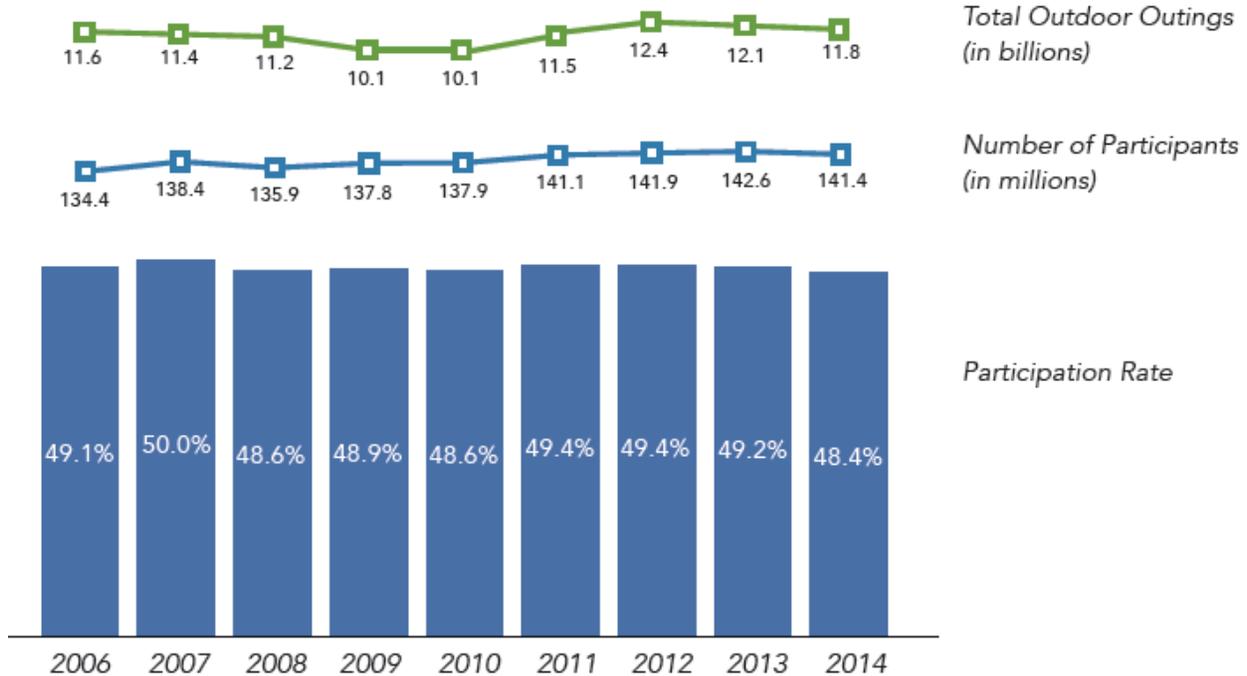
National Participatory Trends - Winter Sports					
Activity	Participation Levels			% Change	
	2009	2013	2014	13-14	09-14
Skiing (Alpine/Downhill)	10,919	8,044	8,649	7.5%	-20.8%
Snowboarding	7,421	6,418	6,785	5.7%	-8.6%
Skiing (Freestyle)	2,950	4,007	4,564	13.9%	54.7%
Skiing (Cross-Country)	4,157	3,377	3,820	13.1%	-8.1%
Snowshoeing	3,431	3,012	3,501	16.2%	2.0%
Telemarking (Downhill)	1,482	1,732	2,188	26.3%	47.6%
NOTE: Participation figures are in 000's for the US population ages 6 and over					
Legend:	Large Increase (greater than 25%)	Moderate Increase (0% to 25%)	Moderate Decrease (0% to -25%)	Large Decrease (less than -25%)	

OUTDOOR RECREATION PARTICIPATION TRENDS

Every year, the Outdoor Foundation publishes the Outdoor Recreation Participation Topline Report, which provides a snapshot of participation in outdoor activities among Americans. The information is derived from a nationwide survey conducted by the Physical Activity Council that received nearly 11,000 responses from households and individuals for 2014. These are the same survey results utilized for the SFIA’s 2015 Study of Sports, Fitness, and Leisure Participation Report, except that results are narrowed to only analyze activities taking place outdoors.

Survey results show that nearly half (48.4%) of all Americans participated in at least one outdoor activity in 2014, which represents 141.4 million participants totaling 11.8 billion outdoor outings. This was a slight drop from 2013 figures, which resulted in the lowest participation rate since the report began in 2006. The chart below describes the total number of outdoor outings, number of participants, and participation rates for outdoor activities since 2006.

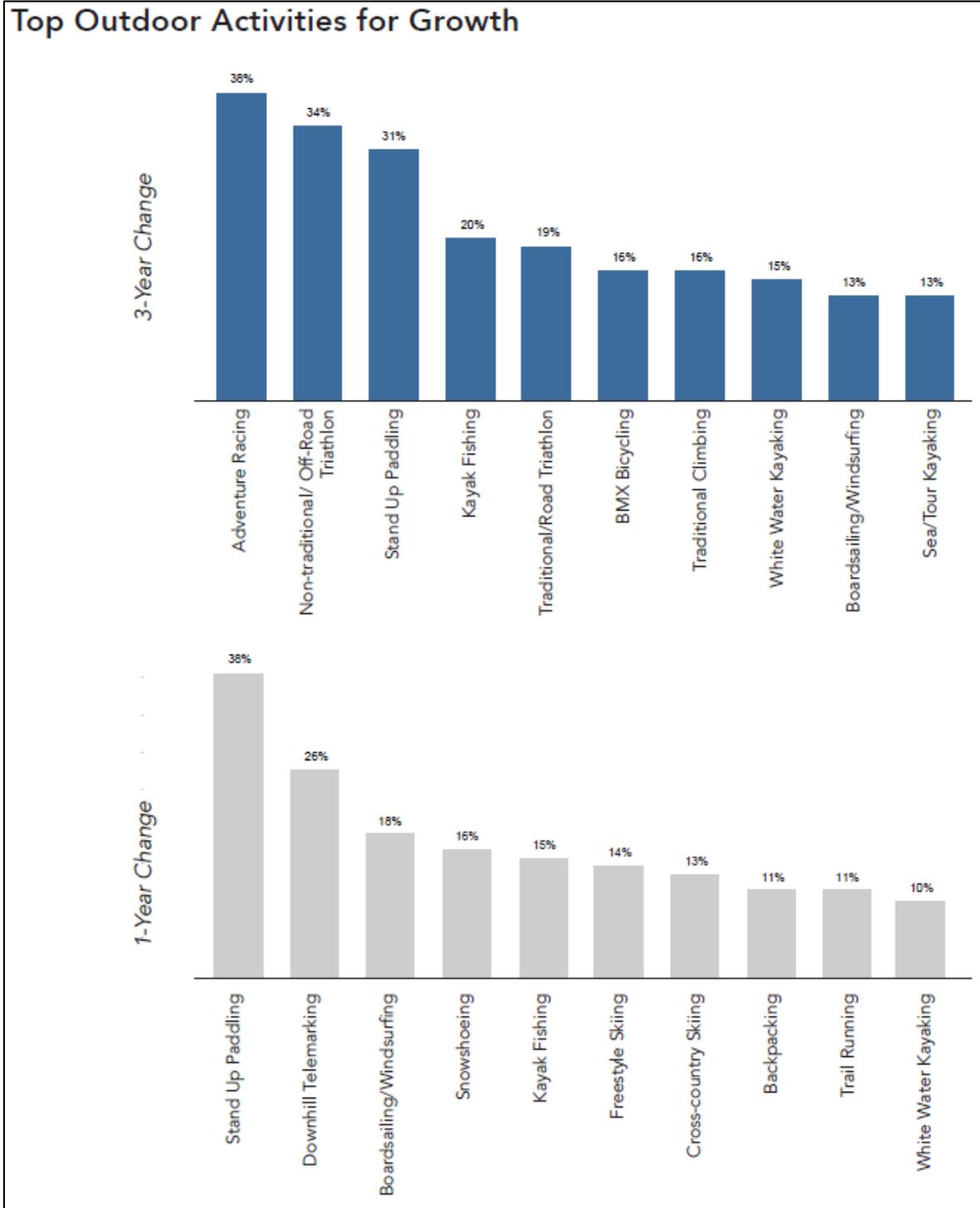
Outdoor Participation, 2006 to 2014



*Source: Outdoor Recreation Participation Topline Report 2015



The charts below reveal the top outdoor activities in terms of participation growth in recent years by assessing the 3-year and 1-year change. Over the last three years, racing activities and water sports have emerged as the fastest growing outdoor activities; while the most recent year has seen strong growth from water and snow sports/activities.



*Source: Outdoor Recreation Participation Topline Report 2015

Youth / young adult participants were reported to have engaged in 4.4 billion outdoor outings in 2014, which equates to 108.4 average outings per participant. The charts below describe the most popular (rate) and favorite (frequency) outdoor activities for youth ages 6-24.

Most Popular Youth Outdoor Activities (ages 6-24)		
Activity	% of Youth	Total Youth Participants
Running, Jogging, Trail Running	25.6%	20.7 million
Bicycling (Road, Mountain, BMX)	21.2%	17.2 million
Camping (Car, Backyard, RV)	18.5%	15.0 million
Fishing (Fresh, Salt, Fly)	18.0%	14.6 million
Hiking	12.8%	10.4 million

Favorite Youth Outdoor Activities (ages 6-24)		
Activity	Avg. Outings per Participant	Total Youth Outings
Running, Jogging, Trail Running	87.2	1.8 billion
Bicycling (Road, Mountain, BMX)	67.2	1.2 billion
Skateboarding	52.8	245.7 million
Surfing	23.4	25.8 million
Birdwatching	22.9	61.9 million

*Source: Outdoor Recreation Participation Topline Report 2015

Adult participants were reported to have engaged in 7.4 billion outdoor outings in 2014, which equates to 73.3 average outings per participant. The charts below describe the most popular (rate) and favorite (frequency) outdoor activities for adults over the age of 24.

Most Popular Adult Outdoor Activities (ages 25+)		
Activity	% of Adults	Total Adult Participants
Running, Jogging, Trail Running	15.8%	33.0 million
Fishing (Fresh, Salt, Fly)	15.0%	31.4 million
Bicycling (Road, Mountain, BMX)	12.8%	26.8 million
Hiking	12.4%	25.9 million
Camping (Car, Backyard, RV)	12.2%	25.5 million

Favorite Adult Outdoor Activities (ages 25+)		
Activity	Avg. Outings per Participant	Total Adult Outings
Running, Jogging, Trail Running	79.5	2.6 billion
Bicycling (Road, Mountain, BMX)	54.3	1.5 billion
Birdwatching	39.1	409.7 million
Wildlife Viewing	28.0	450.1 million
Hunting	23.3	245.6 million

*Source: Outdoor Recreation Participation Topline Report 2015

ASPIRATIONAL INTEREST

Though it is important to understand the trends of participants in all activities, it is equally (if not more) important to understand the interests of nonparticipants. Sports & Fitness Industry Association’s (SFIA) 2015 *Study of Sports, Fitness, and Leisure Participation* reveals swimming for fitness continues to be the most popular “aspirational” sport amongst most age groups.

Aspirational Trends Analysis			
Ages 6-12	Ages 13-17	Ages 18-24	Ages 25-34
Swimming for Fitness	Swimming for Fitness	Swimming for Fitness	Swimming for Fitness
Bicycling	Camping	Bicycling	Bicycling
Camping	Bicycling	Hiking	Camping
Hiking	Working Out with Weights	Trail Running	Hiking
Running/Jogging	Working Out using Machines	Running/Jogging	Working Out with Weights
Ages 35-44	Ages 45-54	Ages 55-64	Ages 65+
Hiking	Swimming for Fitness	Swimming for Fitness	Swimming for Fitness
Working Out with Weights	Working Out Using Machines	Bicycling	Working Out using Machines
Swimming for Fitness	Bicycling	Working Out with Weights	Hiking
Camping	Hiking	Hiking	Fitness Classes
Bicycling	Camping	Working Out using Machines	Working Out with Weights



APPENDIX B – NATURAL RESOURCE ASSESSMENT

SERVICE DESCRIPTION

Natural Resources is one of the more scientific and complex divisions of the Fairfax County Park Authority. The primary functions of this division are the protection of biodiversity through planning and policy, conservation, restoration, and the monitoring and management of natural environments. The work of Natural Resources is governed (and in some cases restricted) by a plethora of local, state, and federal laws or policies.

In 2014, The Fairfax County Park Authority Board adopted a new Natural Resource Management Plan, which spells out how agency staff and partners are to protect, restore, and manage the natural treasures entrusted to their care.

The Park Authority owns over 23,000 acres, and most of it undeveloped. Residents expect and rely on natural areas to provide recreational opportunities as well as environmental services and benefits. The natural resources on parkland can also be considered natural capital: living organisms; non-living components, such as air, water, and soil; the ecosystems they form; and the services they provide. These services include cleaning our air and water, supporting biodiversity, and providing healthy open spaces that allow residents to enjoy nature and contribute to a high quality of life. Natural capital is an asset that requires active management to retain its function and value.

In urbanized areas like Fairfax County, factors such as disturbance from human land uses (including development, encroachments and recreation), over-browsing by white-tailed deer, and competition from non-native invasive species place tremendous stress on natural areas and impact their ability to function as high quality ecosystems. Identifying and removing stressors is the first step towards helping the land heal.

FUNCTIONS OF NATURAL RESOURCES

Traditionally, resource management plans are done on a park-by-park basis. Preparing an agency-wide plan for a large, suburban park system is a fairly new concept. In addition to resource management, the plan also covers the vital role of volunteers and partnerships, as well as cooperative efforts with other county agencies, such as the Department of Public Works and Environmental Services and the Department of Planning and Zoning. Highlights of the plan include the following.

- **Inventory and Planning:** Effective stewardship begins with a fuller understanding of the natural resources under the Park Authority's care. The plan includes actions to address how the Park Authority collects natural resource data and integrates this knowledge into park planning and decision making. A comprehensive natural resources inventory has not been conducted for all parkland, but many parks have been surveyed and areas of significance have been identified. Consolidating and streamlining this information in a Geographic Information System (GIS) database and communicating the significance of natural areas to staff, partners, elected officials, and citizens is of critical importance to preserving their long-term health.
- **Protecting Natural Capital:** Impacts to parkland degrade the quality and long-term health of the county's natural capital. Some impacts can be addressed locally and internally, such as limiting encroachments from adjoining property owners. Broader impacts, such as watershed degradation, browsing by overabundant white-tailed deer, and non-native invasive plant infestation, are significant, large-scale problems with solutions that lie well beyond park boundaries. The actions within this management theme address some of the most significant

impacts to natural resources, including impacts that are countywide in scope and will require the cooperation of citizens and partners to address.

- Fostering Stewardship and Expanding Natural Capital:** The citizens of Fairfax County place a significant value on the county's parks, with about 87% of the population using and visiting the parks each year (according to the 2015 Needs Survey). Many visitors participate in recreational activities that allow them to appreciate the parks' natural resources, such as walking or biking on trails, birding and nature study, visiting nature centers, and kayaking or canoeing. It is clear, however, that many park visitors lack an understanding of the threats facing the long-term health of these natural resources and the important role that visitors play as stewards and advocates both on and off parkland. The natural capital infrastructure, which provides the county with ecosystem services such as clean air and water and quality of life benefits for residents, requires active management and financial commitment to maintain. The actions under this management theme focus on engaging citizens, staff and regional partners in resource management, with the goal of fostering support for programs and initiatives and raising awareness of the need for active stewardship.
- Managing Wildlife Populations and Restoring Ecosystems:** The Park Authority's natural resources must be adaptively managed to achieve positive ecological outcomes. Natural resource management should begin with clearly defined goals such as improving biodiversity, reducing overabundant or non-native invasive species, or promoting naturally-regenerating native plant communities. Natural resource management should be adaptive and experimental. Management actions should include proven as well as novel practices, and staff should incorporate measurable feedback mechanisms, such as biological monitoring, to evaluate their effectiveness and adapt strategies accordingly. The Park Authority should embrace a hands-on approach to natural resource management based on the best available science and with clearly defined management goals.

ALIGNMENT WITH POLICY

The work performed by Natural Resources contributes significantly to county and Park Authority policies and goals, including, but not limited to, those outlined in the following plans:

- Fairfax County Comprehensive Plan, 2013 Edition - Parks and Recreation
<http://www.fairfaxcounty.gov/dpz/comprehensiveplan/policyplan/environment.pdf>
- Great Parks Great Communities Countywide Chapter
http://www.fairfaxcounty.gov/parks/plandev/downloads/gpgc_countywide.pdf
- Natural Resource Management Plan
<http://www.fairfaxcounty.gov/parks/resource-management/nrmp.htm>

ALIGNMENT WITH CUSTOMER, CLIENT AND CITIZEN FEEDBACK

In the 2015 Needs Assessment Citizen Survey performed by ETC Institute, preserving open space and the environment was deemed to be the most important function for Fairfax County Park Authority to perform.



SERVICE LEVEL & SCOPE

The Fairfax County Park Authority is committed to protecting and enhancing the natural environment in Fairfax County and contributing to environmental health through sound horticultural practices. Best practices, current science and staff training ensure conservation of the natural environment, adherence to legislative requirements and contributions to citizen knowledge, enjoyment, health and safety. Further, the division offers volunteer opportunities, education and environmental awareness to provide citizens with a better understanding and appreciation of their open space environment.

BENCHMARKING METHODOLOGY

A key component of the Needs Assessment is a comparison of FCPA’s natural and cultural resource operations with other comparable entities. To this end, the consultant team conducted a benchmarking survey of six agencies (FCPA, Broward County Parks, MetroParks Tacoma, M-NCPPC Montgomery Parks, M-NCPPC Prince George’s Parks, and Mecklenburg County) and received responses from five agencies. Responses to the survey were gathered using a survey website.

When analyzing the survey responses, several adjustments were made to allow for comparisons between agencies:

- Where two people from the same agency responded to a survey (e.g., one person responded to the natural resources questions and one person responded to the cultural resources questions), the responses were combined.
- Where there was a numerical range provided (e.g., for a budgetary question), the midpoint of the range was used for comparison to other agencies.
- Where an agency did not provide a breakdown between natural and cultural resources (e.g., for a budgetary or FTE question), the entire amount was included for comparison to other agencies, with a caveat noted.

NATURAL AREA INVENTORY

Of the Fairfax County Park Authority’s land holdings, 73% of the total acres that make up the park system are designated as natural areas. Of the agencies benchmarked against FCPA, only M-NCPPC had a greater percentage of natural areas as a total of its system. This is indicative that, through the application of best practices in planning, FCPA has been proactive in protecting and enhancing the natural environment in an urban setting.

Agency	Total System Acres	Natural Area Acres	% of System that is Natural Areas
Fairfax County Park Authority	23,265	17,000	73%
M-NCPPC, MD	37,000	27,530	74%
Mecklenburg County, NC	21,000	12,000	57%
Broward County, FL	6,470	3,015	47%
Metroparks Tacoma, WA	3,300	2,300	70%

NATURAL RESOURCES SCOPE OF WORK

The scope of “in-the-field” work performed by the Natural Resources Branch is all encompassing; however, the percentage of natural area acreage that is actively maintained is only 28%. In comparing the quantity of actively maintained acreage performed by FCPA with the benchmarked agencies, the quantity of acreage actively managed by FCPA is not in-line with best practices. The following table represents the percentage of actively managed and maintained natural area acreage performed by the benchmarked agencies.

Agency	Natural Area Acres Actively Maintained	% of Natural Area Acres Actively Maintained
Fairfax County Park Authority	4,720	28%
M-NCPPC, MD	22,628	82%
Mecklenberg County, NC	7,400	62%
Broward County, FL	2,797	93%
Metroparks Tacoma, WA	1,600	70%

MAINTENANCE STANDARDS

Maintenance standards are the tasks and frequencies of work performed in a park system. The development and implementation of work plans to meet standards are essential to the efficient and effective maintenance management of a park system. The table on the following page represents the maintenance tasks and the various frequencies (Level 1 - High, Level 2 - Medium, and Level 3- Low) that are typical in the management of natural areas as developed by PROS Consulting over the last ten years.

The Consulting Team did not perform an analysis of the current management and maintenance standards that are utilized by FCPA; however, the conclusion can be drawn that it currently performs approximately 90% of its maintenance in the 4,720 acres of natural areas that it maintains at a Level 3 (or less) service standard and the application of maintenance standards is inconsistent across the system. This service level is **BELOW** the majority of natural area systems across the country, in which 25% of maintenance is performed at Level 1 and Level 2 service standard. A number of factors can contribute to the low levels of service including the expansive and sprawling metropolitan area of Fairfax County (407 square miles), which increases drive-time between sites, resulting in less work performed in the field. Other factors include the significant number of natural resource acres (17,000), which makes up 73% of the total of the parks system, and the corresponding operating budget of only \$700,000 (or \$148/actively maintained acre).



NATURAL AREAS

Task	Level 1		Level 2		Level 3	
	Frequency	Timeframe	Frequency	Timeframe	Frequency	Timeframe
Inventory/ Map Invasives	Annually	Spring, Summer	Every 2 years	Spring, Summer	As needed	Spring, Summer
Inventory/ Map Natural Community	Annually	Spring, Summer	Every 2 years	Spring, Summer	As needed	Spring, Summer
Inventory/ Map Native Plants	Annually	Spring, Summer	Every 2 years	Spring, Summer	As needed	Spring, Summer
Wildlife Survey	Annually	Year-round	Every 2 years	Year-round	As needed	Year-round
Species Introduction/Translocation	Annually	Year-round	Every 2 years	Year-round	As needed	Year-round
GPS/ GIS	Bi-annually	Year-round	Every 2 years	Year-round	As needed	Year-round
Ground-truth	As needed	Year-round	Every 2 years	Year-round	As needed	Year-round
Photomonitoring	4x/year	Year-round	2x/year	Year-round	Every 2 years	Year-round
Treatment Monitoring	project-specific	Year-round	project-specific	Year-round	project-specific	Year-round
Sample Water	project-specific	Year-round	project-specific	Year-round	project-specific	Year-round
Cutback/Herbicide	2x/year	Fall, Winter	2x/year	Fall, Winter	Annually	Fall, Winter
Plant/ Seed	Annually	Spring, Summer	Annually	Spring, Summer	As needed	Spring, Summer
Collect Seed	Annually	Fall	Every 2 years	Fall	As needed	Fall
Create Burn Break	Annually	Year-round	As needed	Year-round	As needed	Year-round
Flag/ Mark Features	Annually	Year-round	Every 2 years	Year-round	Every 2 years	Year-round
Mow and Remove Brush/Vegetation	Annually	Year-round	Annually	Year-round	Annually	Year-round
Tree Removal	Annually	Year-round	As needed	Year-round	As needed	Year-round
Prescribe Burn	3-yr rotation or as needed	Spring, Summer	As needed	Spring, Summer	As needed	Spring, Summer
Install/ Repair Nestbox	Annually	Fall, Winter	Every 2 years	Fall, Winter	As needed	Fall, Winter
Install Signage	Annually	Year-round	As needed	Year-round	As needed	Year-round
Perimeter Walk	2x/year	Spring, Fall	Annually	Fall, Winter	Annually	Fall, Winter
Perimeter Clearing	Monthly	Fall, Winter	Annually	Fall, Winter	Annually	Fall, Winter
Remove Trash	Monthly	Appropriate soil conditions	Bi-Monthly	Appropriate soil conditions	3x per year	Appropriate soil conditions
Close Trail	As needed	Year-round	As needed	Year-round	As needed	Year-round
Mow Trail	Monthly	Growing season	3x per year	Growing season	2x/year	Growing season
Suspend Mowing	As needed	Spring, Summer	As needed	Spring, Summer	As needed	Spring, Summer
Mitigate Dam	As needed	Year-round	As needed	Year-round	As needed	Year-round
Goose Control	Annually	Spring, Summer	As needed	Spring, Summer	As needed	Spring, Summer
Mulch/ Compost	As needed	Growing season	As needed	Growing season	As needed	Growing season
Transport/Deliver Materials	As needed	Year-round	As needed	Year-round	As needed	Year-round
Inventory/ Repair Field Equipment	2x/year	Year-round	1x/year	Year-round	As needed	Year-round
Stock First-Aid Supplies	2x/year	Year-round	2x/year	Year-round	Annually	Year-round
Chip	As needed	Year-round	As needed	Year-round	As needed	Year-round
Skim Pond	As needed	Growing season	As needed	Growing season	As needed	Growing season
Install Erosion Control	As needed	Year-round	As needed	Year-round	As needed	Year-round
Install/ Remove Fencing	As needed	Fall, Winter	As needed	Fall, Winter	As needed	Fall, Winter

SERVICE EFFICIENCY

Efficiency can best be measured by comparing the unit cost of work at a specific level of care against an acceptable standard. For the purposes of this analysis, the Consulting Team utilized the standards it has developed over the last 19 years of consulting in the field of parks and recreation, along with the National Recreation and Parks Association (NRPA) standards.

COST OF SERVICE

The Natural Resources Branch receives its funding primarily through tax dollars, and expends approximately \$700,000 annually. As noted previously, the 17,000 acres of natural areas make up approximately 73% of the total acres of the system, with only 4,720 being actively managed. The tables below are a breakdown of the unit cost expended by Natural Resources for the total cost of service provided. The unit cost of \$148.31 to maintain an acre of natural area in Fairfax County is extremely low, even when performing work at a Level 3 service standard. The typical range of unit costs for maintaining natural areas at a predominately Level 3 service standard in Climate Zones 7 of North America is \$3,000-\$6,000 per acre. By this standard, the FCPA’s Natural Resources Branch is underfunded by a minimum of \$2,351.69 per acre annually and is operating extremely efficiently.

Agency	Population Served	Total Natural Area Acreage	Natural Area Acres per 1000 population	Total Budget (Expenses)	Total Budget per Capita	Total Cost per Natural Area Acre Maintained
Fairfax County Park Authority	1,116,200	17,000	15.23	\$ 700,000	\$ 0.63	\$ 148.31

Recommendation: A unit cost breakdown of annual maintenance activities for natural resource areas that are actively maintained is provided in the table on the following page.



Management Strategy	National Average Annual Cost per Acre
Resource, inventory, mapping, and planning	\$500-\$1000 per acre
Non-native invasive plant control to exhaust the plant seed bed	Total cost including labor (\$150-\$250) and herbicide (\$50-\$100)=\$200-\$350/acre (does not include reseeding)
Deer management to reduce herds to a maintenance level-15 deer/square mile	\$35 per acre for every 100 acres for 6 wire high tensile electric fence; Sharpshooting contracts - \$143/acre
Land management (e.g., mowing, tree clearing, burning)	Clearing - \$12-\$18/ acre for Brush hog; \$60-\$75/acre (herbicides) Mowing - \$20-\$25 per acre Prescribed Burning - \$30-\$50/acre
Restoration (e.g., herbaceous, forested) including appropriate warranty monitoring and maintenance	Reforestation - \$70-\$250/acre Herbaceous - \$1500-\$2500 Maintenance - 15-25% of cost of project
Forestry Treatments	Understory competition release cut - \$1,905/acre Selective thinning -\$3,063/acre Shelterwood cut-\$10,071/acre Prescribed forest burn - \$83/acre Shelterwood cut and NNI stabilization - \$3,815/acre SMASH meadow - \$8,027/acre Understory planting - \$33,250/acre Light gap incubator - \$2,048/acre

SERVICE FUNDING SUSTAINABILITY

Natural Resources is classified as a core essential service within the FCPA. Core essential services are traditionally supported by tax dollars. Grants and donations are other sources of revenue that are available for acquisition of new “natural area” land. The tax supported funding that Natural Resources currently receives is sustainable, but also far less than sufficient. Based on the typical range of unit costs, the division is receiving only 5% of the “best practice funding targets” for work performed at a Level 3 service standard in natural areas.

SERVICE EFFECTIVENESS

At the onset of the Cost of Service Analysis during the spring of 2014, the Natural Resources Branch did not have true performance measures in place that could determine the level of success in which it was achieving its intended outcome of protecting and enhancing the natural environment in Fairfax County. Without performance measures, the Natural Resources Branch measured its success in citizen satisfaction and compliance with County and Park Authority policies. The development of new performance measures, as detailed below, will help the Natural Resources Branch more clearly determine their level of success.

PERFORMANCE MEASURE DEVELOPMENT

Performance measures quantitatively inform organizations about how successful their services are in meeting their intended outcomes, as well as the processes that produce them. They are a critical tool that assists in the understanding, management, and improvement of organizations. Performance measures provide the information necessary to make intelligent decisions about work that is performed.

Performance measures can tell us:

- How **successful** work is being performed
- If **processes** are in statistical control
- If **goals** are being met
- If and where **improvements** are necessary
- If **customers** are satisfied

COMPONENTS OF PERFORMANCE MEASURES

Performance measures in recent years have become the backbone of successful organizations and moved beyond the simple collection of facts that measure volume of work. The key components of performance measurement are outcomes, inputs, activities, outputs, efficiency, and effectiveness.

- **Outcomes** are the benefits or changes for participants in programs or recipients of services during or after the program or strategy is implemented.
- **Inputs** are the physical, financial and human resources allocated to or consumed to do work.
- **Activities** are what the program or strategy does with the inputs provided. Activities include the tasks, steps, methods, techniques and operations performed.
- **Outputs** are the elements of operation or level of effort, the products or services resulting from the implementation or accomplishment of work.
- **Efficiency** is measured by the unit cost required to perform the work in terms of dollars. “How well did you “use” your budget to perform work?”
- **Effectiveness** is a service quality measure of the work that you performed. Effectiveness is measured in % of work you set out to perform.

NATURAL RESOURCES PERFORMANCE MEASURES

The following page represents a sampling of key performance measures that are recommended for implementation by the Natural Resources Branch.



Activity	Activity Goal (whom, why)	Input (Budget)	Output (End Product)	Efficiency Cost or Productivity	Effectiveness (service quality)
Natural Areas Operations, Planning, & Monitoring	Ensure urban ecosystems will be managed for ecological health	TBD	<ul style="list-style-type: none"> Ecological Integrity Index scores for natural environment and manicured parks 	<ul style="list-style-type: none"> \$ cost per acre for park Ecological Integrity Index assessment \$ cost per acre for park management 	<ul style="list-style-type: none"> % of existing parks must fall within a target Ecological Integrity/Index range based on park type % of parks acquired by FCPA must fall within a target Ecological Integrity/Index range based on park type
Natural Areas Operations	Standardized natural environment park management plans clearly reflect habitat management objectives and activities	TBD	<ul style="list-style-type: none"> # natural environment parks with written management plans Total acre natural environment parks managed 	<ul style="list-style-type: none"> \$ cost per work plan is tracked 	<ul style="list-style-type: none"> % natural environment parks with written management plans % progress achieved against management plan objectives
Natural Areas Operations	Ensure that there is an increase in naturalized landscapes where naturalization of manicured areas contributes to meeting FCPA targets for biodiversity and reduction of chemical, physical and mechanical inputs	TBD	<ul style="list-style-type: none"> Total acre of maximum potential naturalization sites determined # of parks with naturalization projects Total acre of naturalized sites 	<ul style="list-style-type: none"> \$ cost per naturalized acre \$ savings per naturalized acre (e.g. inputs, labour, maintenance) 	<ul style="list-style-type: none"> % operational and capital savings realized on naturalized lands annually % of potential naturalization area naturalized

INVENTORY, CLASSIFICATION, MAPPING, AND DIGITAL DATA CREATION

The work that is of the highest priority for the Natural Resources Division is to survey and classify all vegetation communities on Fairfax County Park Authority (FCPA) lands. The scope of this project will include all 23,720 acres owned by the FCPA and will produce a planning-level geographic dataset and map.

GOALS

The project will be conducted in accordance with FCPA Policy 201, Natural Resources. It will also help fulfill recommended actions one, two, and three in the agency-wide Natural Resource Management Plan.

OBJECTIVES

The following project objectives will achieve the goals identified above.

1. Survey and classify vegetation communities according to the Communities of Virginia Classification of Ecological Community Groups.
2. Develop a dataset that will be included in the natural resources geodatabase.
3. Develop a map and dataset that will be used to identify ecological restoration and natural capital improvement sites; identify, propose, and designate Resource Protection Zones; and inform agency projects and processes to include park planning, development, management, maintenance, and interpretation.

SPECIFICATIONS

- Communities will be classified to the ecological group level of the Communities of Virginia Classification of Ecological Community Groups classification system.
- The following community group types and their locations will be identified and communicated by the contractor to the NRMP: northern hardpan basic oak-hickory forest, fall-line terrace gravel magnolia bog, Atlantic upland depression willow oak swamp forest, and ash-swamp blackgum freshwater tidal swamp.
- All geographic data will be provided as an ESRI compatible feature class within a geodatabase.
- Data Topology - polygons and vegetation communities will not overlap and be contiguous.
- Polygons and boundaries must conform to FCPA park boundaries.
- Tabular data will be free from spelling or grammatical errors.
- Notes or additional information will be clear and complete, and free of short-hand or “lingo”.
- Spatial accuracy will be planning-level.



BUDGET NARRATIVE – CONTRACTOR OPTION

The following budget includes all costs to complete the project. Personnel will fund one E-status Ecologist II for half-time for the duration of the project. The Ecologist II will manage the project by coordinating the contractor, communicating with site staff, and other activities to ensure project completion with minimal impact to operations. Fringe Benefits will support the Ecologist II. Travel funding will pay for half of a rental car for two years. The rental car will be used by the project manager to visit sites and coordinate contractors. The other half of the rental car funding will be shared with another ongoing project. Supplies will fund the office and field supplies needed by the Ecologist II to complete the project. Contractual will fund the contractor services to complete the project.

Personnel			
Position	Rate	Hours	Cost
Ecologist II	\$35.77/hour	1560	\$55,801
Sub-total Personnel			\$55,801
Fringe Benefits			
Description	Rate		Cost
Total Personnel	11.322%		\$6,318
Sub-total Fringe			\$6,318
Travel			
Description	Rate	Number	Cost
Rental Car	\$700/month	12	\$8,400
Sub-total Travel			\$8,400
Supplies			
Description	Rate	Number	Cost
Operating Supplies	\$500	2	\$1,000
Total Supplies			\$1,000
Contractual			
Description	Rate	Number	Cost
Contractor Services	\$23.50	23,720	\$557,420
Sub-total Contractual			\$557,420
GRAND TOTAL			\$628,939



BUDGET NARRATIVE – IN-HOUSE OPTION

The following budget includes all costs to complete the project. Personnel will fund one full-time E-status Ecologist II and two full-time E-status Ecologist I staff for the duration of the project. The Ecologist II will manage the project by coordinating the contractor, communicating with site staff, and other activities to ensure project completion with minimal impact to operations. The Ecologist II will also train and supervise Ecologist I personnel and perform fieldwork and data processing activities. Ecologist I staff will primarily perform fieldwork and some data processing. Fringe Benefits will support the project personnel. Travel funding will pay for a rental car for two years. The rental car will be used by staff to conduct and coordinate field activities. Supplies will fund the office and field supplies needed to complete the project and include office and field supplies, tablet computers for field data collection, and mobile data plans to support the tablet computers.

Personnel			
Position	Rate	Hours	Cost
Ecologist II	\$35.77/hour	3120	\$111,602
Ecologist I	31.05/hour	6240	\$193,752
Sub-total Personnel			\$305,354
Fringe Benefits			
Description	Rate		Cost
Total Personnel	11.322%		\$34,572
Sub-total Fringe			\$34,572
Travel			
Description	Rate	Number	Cost
Rental Car	\$700/month	24	\$16,800
Sub-total Travel			\$16,800
Supplies			
Description	Rate	Number	Cost
Field and Office Supplies	\$800/year	2	\$1,600
Tablet Computer	\$1,200	3	\$3,600
Mobile Data Plan	\$1,000/year	3	\$3,000
Total Supplies			\$8,200
GRAND TOTAL			\$364,927





APPENDIX C – CULTURAL RESOURCES ASSESSMENT

SERVICE DESCRIPTION

Virginia is one of the richest historical areas in all of America. Events that shaped our country's history happened right here in Fairfax County. Traces of that history are all around us, if you know where to look. Documenting and preserving these clues to our past is essential. If we take action now, can we preserve these clues for the future generations of people who will live, work, and play in Fairfax County.

The archaeologists of the Cultural Resource Management and Protection team find evidence of Native American life, early exploration, our colonial past, 19th century development, and the Civil War, adding to the heritage of the county and the nation. This includes illuminating the history of people who did not necessarily write it for themselves: Native Americans, African Americans (both enslaved and free), women and children, and other ordinary county citizens.

The Cultural Resource Management and Protection (CRMP) offices are housed in the James Lee Community Center in Falls Church. In addition to office space for CRMP staff, the James Lee Community Center is home to three labs that are used by staff and volunteers to clean, analyze, and catalog prehistoric and historic artifacts. The center is also home to archival space which contains the county's collection of over three million artifacts, spanning the last 13,000 years of Fairfax County's history. Museum artifacts are housed in various FCPA parks but primarily at the Walney Visitor Center at EC Lawrence Park.

FUNCTIONS OF CULTURAL RESOURCES

The Cultural Resource Management and Protection team is made up of full-time and part-time professional staff as well as interns and volunteers that serve as historic preservationists, museum collection managers, archaeologists, and contract archaeologists. Their division is the primary steward of cultural resources in the county. Cultural resources are defined as physical evidence of any past human activity identifiable through field survey, historical documentation, or oral history. These include archaeological sites, historic buildings, structures, objects or districts, cemeteries, and cultural landscapes.

The Cultural Resource Protection team has four primary tasks:

- To inventory, document, protect, and interpret historic and archaeological resources on parklands.
- Conduct development plan review prior to construction so as to be able to document sites both on parkland and county-wide prior to development; provide technical guidance for projects mandated by federal regulations.
- To participate in the planning process for new and existing parkland to make sure that plans address cultural resources.
- To educate staff and the public about historic and archaeological resources, their protection and the destruction caused by relic hunting.

ALIGNMENT WITH POLICY

The work performed by Cultural Resources contributes significantly to county and park authority policies, including, but not limited to:

- Fairfax County Comprehensive Plan, 2013 Edition - Heritage Resources

<http://www.fairfaxcounty.gov/dpz/comprehensiveplan/policyplan/heritage.pdf>

- Great Parks Great Communities Countywide Chapter

http://www.fairfaxcounty.gov/parks/plandev/downloads/gpgc_countywide.pdf

- Cultural Resources Management Plan

<http://www.fairfaxcounty.gov/parks/gmp/crmpfinal.pdf>

ALIGNMENT WITH CUSTOMER, CLIENT AND CITIZEN FEEDBACK

In the 2015 Needs Assessment Citizen Survey performed by ETC Institute, conserving and educating people about historic sites ranked in the top seven of the most important functions for Fairfax County Park Authority to perform.

SERVICE LEVEL & SCOPE

The Fairfax County Park Authority is committed to protecting cultural and historic resources in Fairfax County and contributing to citizen quality of life through sound archaeological practices. Best practices, current science, and staff training ensure the preservation of cultural resources, adherence to legislative requirements, and contributions to citizen knowledge and enjoyment. Further, the division offers volunteer opportunities, education, and cultural and historic awareness to provide citizens with a better understanding and appreciation of rich heritage of Virginia and the county.

CULTURAL RESOURCE FUNCTIONS

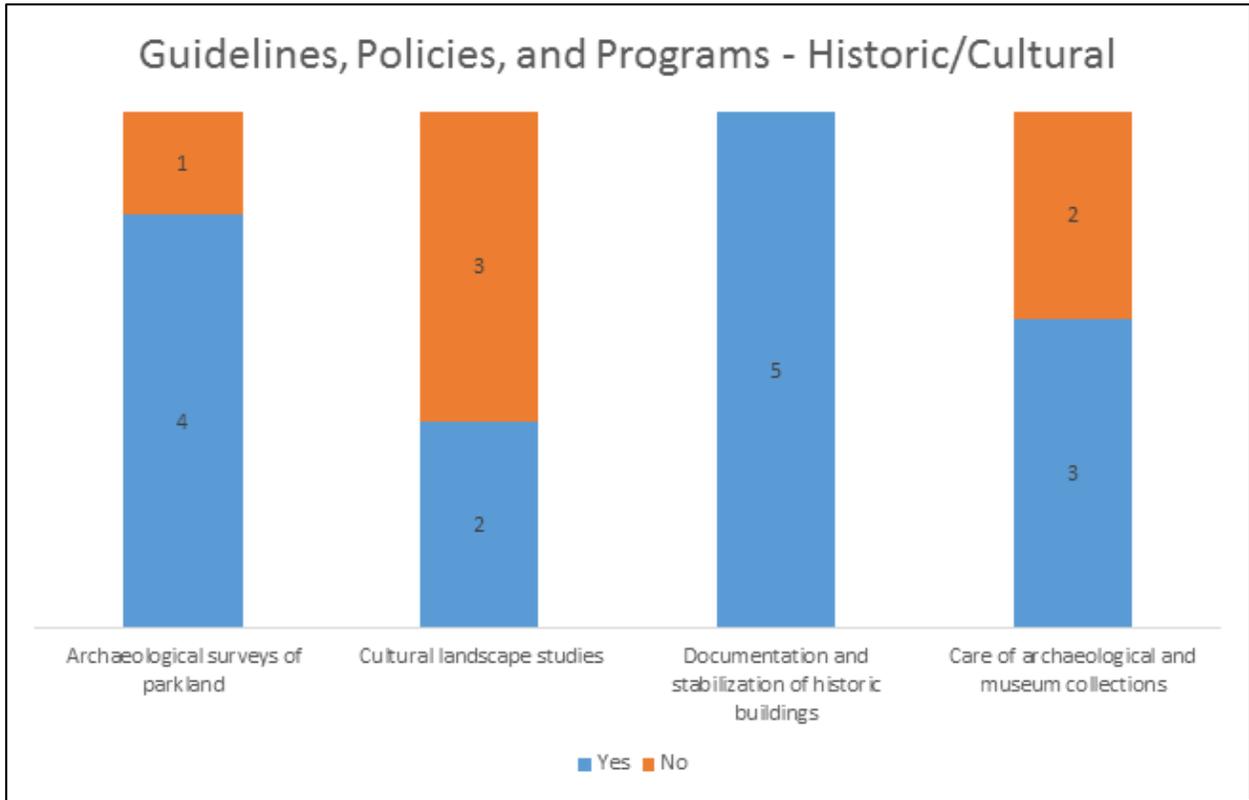
The Fairfax County Park Authority conducts, work, operates, performs and maintains a variety of best practice functions related to cultural resources. Of the agencies benchmarked (see section XX for discussion of benchmarking methodology), FCPA is one of only three that performs all of the best practice cultural resource functions. This is indicative that, through the application of best practices in archaeology and preservation, FCPA has been proactive in protecting and enhancing the cultural and historic resources in an urban setting.

Other functions specified in the comparative analysis include:

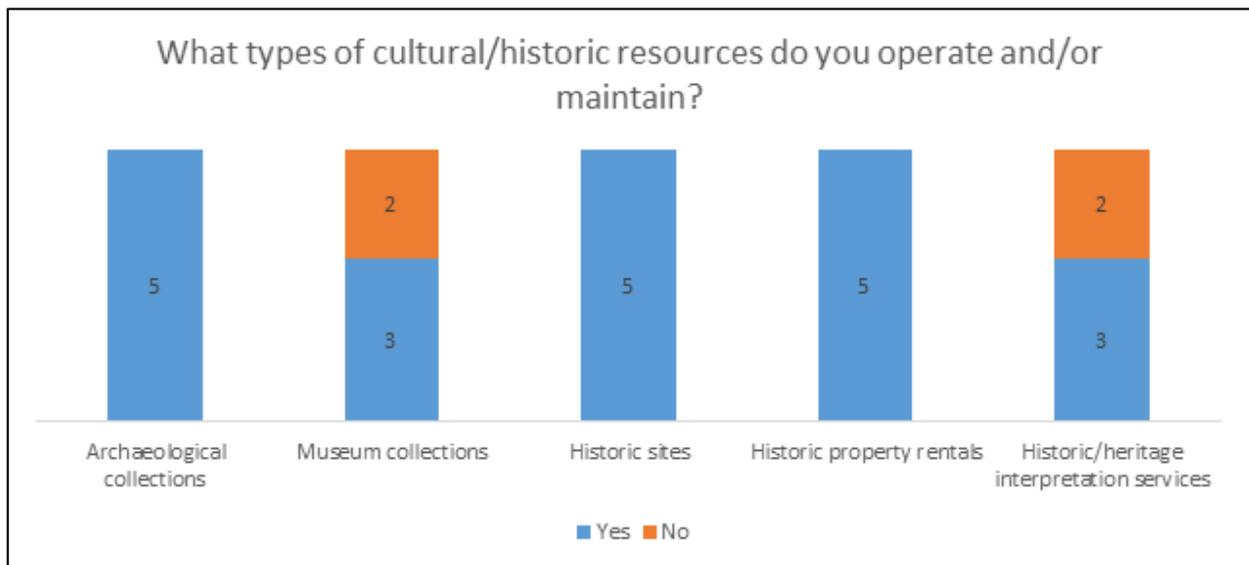
- M-NCPPC: Archaeological Resources; Archaeological Excavations; Archaeology Summer Camps for Children
- FCPA: National Register Historic Districts; County Historic Overlay Districts; Archeological Sites; Cultural Landscapes



CULTURAL RESOURCES – GUIDING PRINCIPLES AND PRACTICES



The scope of “in-the-field” work performed by Cultural Resources is expansive and all-encompassing and is guided by principles, policies and practices that ensure work is performed at the highest standard. FCPA is one of only two agencies benchmarked during the comparative analysis that has the four significant policies that guide the work of Cultural Resources in place.



COSTS OF SERVICE

ARCHAEOLOGICAL SURVEYS

As with any project, costs are directly proportional to the amount of work expended. In addition, each phase of cultural resource management is increasingly costly and more difficult to accurately estimate given the amount of time and labor necessary.

PEDESTRIAN ARCHAEOLOGICAL SURVEY OF PARKLAND

A records search and reconnaissance survey of the project area is typically the least expensive phase given the limited nature of the undertaking, i.e., resource identification and reporting only. Records can typically be accessed, evaluated, and summarized by an individual researcher over the course of a few days. The actual time necessary for the reconnaissance survey of the project area is directly correlated with the size of the parcel(s) to be inspected and the number of cultural resource sites recorded, as well as, terrain and vegetation constraints. Survey costs are estimated assuming one senior staff member, a crew of archaeological technicians, and associated vehicle fees. Additional fees associated with per diem based jobs, etc., may apply.

PHASE I ARCHAEOLOGICAL SURVEY

Phase I evaluation studies typically require a combination of hand- and machine-excavated trenches and test units. Hand-excavated units require a crew of two to three technicians per unit with a field director supervising and supporting field activities. Two to three days may be required per unit depending on depth and materials recovered. Cost of processing, analysis, curation and reporting is dependent on artifact density and variety. However, a reasonable estimate can be produced subsequent to site and document inspection.

PHASE II ARCHAEOLOGICAL SURVEY

Phase II data recovery programs are generally costly undertakings. An accurate estimate of costs requires detailed review of Phase II evaluation data and artifacts, as well as frank discussions with lead agency reviewers with regard to appropriate sample size and analyses to be undertaken. However, a few key pieces of information allow for a working estimate to be approximated: archaeological site size or portion of the site to be directly impacted, sample size as determined through a research design and lead agency interactions (typically between 5 and 15 percent of the impact area), the depth of the deposit, the density and variety of artifacts, and the direction and extent of the analyses to be undertaken.

ARCHAEOLOGICAL MONITORING

Archaeological monitoring is often required to identify archaeological features during construction. Monitors are lead agency-approved field technicians specifically trained to quickly assess archaeological finds and interact directly or indirectly with construction and development staff.



SUMMARY OF ARCHAEOLOGICAL SURVEY COSTS

ARCHAEOLOGICAL ACTIVITY	COST
HOURLY WAGES TO CONDUCT SURVEY	
Hourly Wages for Senior Staff to conduct Archaeological Survey	\$50-\$100 per hour
Hourly Wages for Laboratory and Field Staff to conduct Archaeological Survey	\$30-\$50 per hour
PEDESTRIAN ARCHAEOLOGICAL SURVEY	
Field Reconnaissance	\$20-\$30 per acre
Research, Mapping, Form Preparation, Report	\$1500-\$3000 per survey
PHASE I ARCHAEOLOGICAL SURVEY	
Archaeological Fieldwork	\$500-\$1000 per acre
Research Design and Background Research	\$1500-\$3000 per survey
Laboratory Processing, Analysis, Curation and Reporting	Dependent on quantity, density and variety of artifacts
PHASE II ARCHAEOLOGICAL SURVEY	
Data Recovery Program	\$250-\$500 per square feet
ARCHAEOLOGICAL MONITORING	
Hourly Wage (minimum of 4 hours) with 24 hour notice	\$35-\$50 per hour

HISTORIC BUILDINGS

DOCUMENTATION

A historic structure report provides documentary, graphic, and physical information about a property's history and existing condition. Broadly recognized as an effective part of preservation planning, a historic structure report also addresses management or owner goals for the use or re-use of the property. It provides a thoughtfully considered argument for selecting the most appropriate approach to treatment, prior to the commencement of work, and outlines a scope of recommended work. The report serves as an important guide for all changes made to a historic property during a project-repair, rehabilitation, or restoration-and can also provide information for maintenance procedures. Finally, it records the findings of research and investigation, as well as the processes of physical work, for future researchers.

STABILIZATION OF HISTORIC BUILDINGS

Basic to the integrity of any structure is ensuring that it remains upright and intact against the force of gravity. Soil erosion, moisture, poorly designed modifications, substandard quality of materials or craftsmanship, and deterioration due to aging are among the many factors that are threats to a stability of a building.

Some of the types of structural stabilization work that are performed include shoring, underpinning, wood beam replacement, structural steel, foundation repair, threaded rods and plates, and graphite rod with structural epoxy. Whether it is an old house at the mercy of an unstable ravine, sagging cantilevered eaves, or a 200+ year old building in need of structural stabilization, it is necessary to employ the services of a contractor that possesses the proper materials, ingenuity, and skill to handle the numerous structural problems historical buildings are subject to experiencing.

SUMMARY OF HISTORIC BUILDING COSTS

HISTORIC BUILDING ACTIVITY	COST
DOCUMENTATION	
Full Documentation of a Historic Building	\$30-\$30 per square foot
STABILIZATION	
Stabilization of Historic Building (dependent upon the size and condition of the building)	\$2500-\$5000

CARE OF ARCHAEOLOGICAL AND MUSEUM COLLECTIONS

ARCHAEOLOGICAL COLLECTIONS

Procedures for processing and long-term curation should be followed in preparing artifact collections and documentation. These standards are consistent with the Secretary of the Interior’s Standards and Guidelines for Curation, 36 CFR 79 and associated documentation should accompany the collections.

The standard fee charged for curating the artifacts with a repository is \$300-\$400 per box (Standard Record Storage Box 15" x 12 .5" x 10") or \$150-\$250 per half box.

MUSEUM OPERATIONS AND COLLECTIONS

A shared set of standards are a critical element for any professional field. Standards are a tool to help museums assess and align their operations and performance; they serve to hold museums accountable to each other, their stakeholders, the public and society at large; and they enable museum leadership and staff to make informed, ethical and consistent decisions in support of their mission and public trust responsibilities.

SUMMARY OF MUSEUM COLLECTIONS COSTS

ARCHAEOLOGICAL AND MUSEUM COLLECTIONS ACTIVITY	COST
MUSEUM OPERATIONS	
Museum Operational costs less curation costs	\$35-\$50 per square foot
Hourly Wages for Laboratory and Field Staff to conduct Archaeological Survey	\$30-\$50 per hour
CURATION OF ARTIFACTS	
Curation of Artifacts - Standard Box (15" x 12 .5" x 10")	\$300-\$400 per standard box
Curation of Artifacts - Half Box	\$150-\$250 per half box
HELD IN-TRUST COLLECTION BOX COSTS	
One-Time In-Coming Cost	\$300-\$400 per box
Annual Maintenance Cost	\$60-\$75 per box
DEEDED COLLECTION BOX COSTS	
One-Time In-Coming Cost	\$1000-\$2000 per box



APPENDIX D - RECENTER ASSESSMENTS

AUDREY MOORE RECENTER ASSESSMENT

Audrey Moore RECenter is located at 8100 Braddock Road in Annandale. The facility opened in 1977 and was the first recreation center constructed by the Fairfax County Park Authority. Significant renovations took place to the facility in 1996 (creating a new fitness room) and 2001 (locker room and pool areas), with several smaller renovation projects and system replacements undertaken over the years. The facility is approximately 76,100 square feet, and includes a 50-meter x 25-yard pool with diving boards, spectator seating, and outdoor sundeck; locker rooms; racquetball/squash courts; gymnasium; dance room; pottery lab with kiln; 3 multi-purpose rooms; senior center; and fitness center. The facility is located within Wakefield Park, a 294-acre site that includes numerous trails, basketball courts, tennis courts, sport fields, playgrounds, and a skate park.

SITE RECOMMENDATIONS

Larger signage, potentially with electronic message board functionality, should be considered for the park entrance at Braddock Road to improve visibility and wayfinding to the recreation center facility. The Consulting Team recommends replacement of all of the concrete curbing within the parking lot within the next five years, and replacement of the exposed aggregate concrete plaza leading to the entrance within the next ten years. A separate bicycle parking area should be created in an area that does not conflict with persons walking into or out of the facility.

BUILDING ENVELOPE RECOMMENDATIONS

With the exception of recently replaced items, the scope and extent of issues encountered with the building envelope are serious enough in nature that serious consideration should be given to replacing the entire building with a new structure that would address each of the issues identified. A new structure would also have the benefit of being much more energy-efficient by virtue of increased insulation values in wall and roof assemblies.

If it is not possible to replace the Audrey Moore RECenter building within the next five to ten years, we recommend repairing any cracks in existing masonry and re-sealing all existing control joints with high-grade polyurethane sealant. Exterior walls should be thoroughly cleaned and dried and a coat of a high-quality masonry waterproofing product should be applied once the wall assemblies are dried. New weeps or cell vents should be installed in existing masonry walls to promote drainage and drying of the wall assembly, reducing the chances for future efflorescence and moisture retention to develop. Damaged metal wall panels should be removed and replaced; new products offer better insulating value and color retention properties.

Existing aluminum framing and glazing at the entrance, multi-purpose rooms, and gymnasium should be removed and replaced with thermally broken frames with insulating glass. Secondary exterior doors and frames should be removed and replaced with new 14 gauge G90 galvanized door and frame units which will provide better weather resistance and protection against intrusion. Existing skylights require replacement.

Finally, all of the existing roofing should be replaced. We recommend removal of the existing roofing and insulation as opposed to a re-cover with a PUF system, as it is probable that much of the existing insulation is saturated with moisture and therefore no longer able to offer thermal protection. A new single-ply membrane roof with vapor barrier and tapered insulation will offer an expected service life of

25 to 30 years, considerably reduced maintenance, and much improved energy efficiency by virtue of increased insulation values.

INTERIOR FINISHES RECOMMENDATIONS

As with the building envelope recommendations, the timing and necessity of repair and replacement of interior finish components is somewhat dependent on FCPA's long-term plans for the Audrey Moore RECenter. If the facility is planned to be replaced with a new building within the next five to ten years, we would recommend replacing and maintaining finishes only as required to keep the facility operational and code compliant.

If it is not possible to replace the Audrey Moore RECenter building within the next five to ten years, we recommend complete renovation of the building's office areas and senior center to address numerous issues with ceiling and floor finishes. The ceramics room requires complete renovation and replacement of all finishes. Circulation areas and corridors should be upgraded with new finishes to improve durability and new lighting to increase illumination levels and energy efficiency. Public restrooms should be completely renovated to address worn finishes, undesirable odors and accessibility issues. The elevator should be replaced and upgraded to a current, code-compliant system that allows for stretcher use.

Lay-in ceiling systems and lighting throughout the facility should be replaced to improve illumination levels, increase energy efficiency, and remove damaged elements. Operable walls in the Senior Center and multipurpose rooms should be replaced with new systems. Finally, the telescoping bleachers in the natatorium and gymnasium should be replaced; in the natatorium, consideration should be given to renovating the seating areas to include fixed seating as is present in FCPA's newer centers.

The Consulting Team recommends that any major interior renovation work be sequenced to occur after the recommended exterior repairs to ensure that the new finishes are not damaged by moisture intrusion, condensation, or leaks.

MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION RECOMMENDATIONS

As with the building envelope recommendations, the timing and necessity of repair and replacement of M/E/P/FP components is somewhat dependent on FCPA's long-term plans for the Audrey Moore RECenter. If the facility is planned to be replaced with a new building within the next five to ten years, we would recommend replacing and maintaining items only as required to keep the facility operational and code compliant.

If it is not possible to replace the Audrey Moore RECenter building within the next five to ten years, the following recommendations apply:

A majority of the original equipment has been replaced at some time in the recent past. However, the water cooled chiller, cooling tower, boilers, pumps and other hydronic piping systems are in poor condition. Some of the rooftop HVAC units are over 35 years old and in need of replacement. The entire mechanical plant will be in need of replacement in the next five years. The cooling tower is sitting on rotted steel and is currently unsafe. The addition of a direct digital control system is recommended at the time of this replacement.

The electrical power system is old but functional. The Consulting Team would recommend replacing the old panels with a new switchboard. The main distribution panel was replaced many years ago; however, the remainder of the panels appear to be original and should be replaced at the time of the next major renovation. GFCI receptacles appear to be in compliance with code with receptacles 6 feet from any



plumbing fixtures. The existing lighting system has been upgraded many times. It appears the fixtures have been upgraded from T-12 to T-8 fluorescent which are 20% more efficient. It also appears that some of these T-8 fixtures have been replaced with LED fixtures which are 40% more efficient than the T-8 fixtures. We recommend using LED fixtures with digital control technology, where applicable.

The domestic hot water heating system is connected to the boiler system using a shell and tube heat exchanger. The heat exchanger is in poor condition and the DHW system should be replaced with a new high efficiency system. The plumbing system is in good condition, but the plumbing fixtures are original and the flush valves have been retrofitted for low flow use. Replacement of fixtures and fittings is recommended.

Sections of gas and fire protection piping that are severely corroded should be replaced. Sections of such piping that exhibit moderate corrosion should be painted with a high-quality epoxy coating.

AQUATICS RECOMMENDATIONS

We recommend creation of a containment and exhaust system for pool chemicals within the pool mechanical room as soon as possible to prevent any further chloramine-related damage to structure and equipment regardless of long-term plans for the facility. The existing filtration system should be replaced with a new regenerative DE filter system within the next three years, and sections of underweight and/or corroded piping should be replaced at that time. The table below provide a line item overview of aquatic improvement recommendations for Audrey Moore RECenter.

COST SUMMARY OF IMPROVEMENTS

Audrey Moore RECenter Facility Assessment Improvement Plan	
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$315,000
BUILDING ENVELOPE	\$1,340,000
INTERIOR FINISHES	\$1,295,000
MECHANICAL	\$2,120,000
ELECTRICAL	\$395,000
PLUMBING	\$315,000
FIRE PROTECTION	\$75,000
AQUATICS	\$5,360,000
	\$11,215,000

CUB RUN RECENTER ASSESSMENT

Cub Run RECenter is located at 4630 Stonecroft Boulevard in Chantilly. The facility opened in 2005 and is the newest facility in the FCPA system. The facility is approximately 65,000 square feet, and includes a 25-yard x 25-yard pool with diving boards and lift, spectator seating, leisure pool with zero-depth entry, play structure, and two large body slides; spa; locker rooms; multipurpose rooms; aerobics/dance rooms; and large fitness center. The facility was designed to be expandable to incorporate a second competition pool. The facility is located on a large site adjacent to a school property.

SITE RECOMMENDATIONS

The site appears to have enough parking for the size of the facility and, in general, is well laid out with a dedicated drop-off area, bike parking, and attractive landscaping.

Areas of aggregate concrete sidewalks and stained concrete areas in the drop-off lane have generally deteriorated faster than more conventional materials would be expected to and are largely at the end of their useful life. Consideration should be given to replacing all of the exposed aggregate sidewalks near and around the facility entrance and replacing the colored concrete in the facility drop-off area with a better-performing material within the next two years. Consideration may be given to a permeable paver system in these areas, which would offer stormwater management and infiltration benefits, while maintaining the original desired character of the materials being replaced.

BUILDING ENVELOPE RECOMMENDATIONS

Overall, the exterior of the building is in very good condition considering its complexity of design and number of different materials utilized. We recommend further testing and study to determine the cause of the black deposits encountered on stone banding around the building before cleaning is attempted. Since the discoloration occurs in multiple locations and is not necessarily confined to north and northeast sides of the building, a moisture-related issue may not necessarily be the cause. Water runoff from the metal shingles above is one possible cause of the staining. Alternatively, cast stone materials sometimes react to various chemicals present in the air in specific locations, and will sometimes exhibit similar discoloration immediately after cleaning if the environmental issues are not addressed.

Once the root cause of the staining is determined, we recommend cleaning or replacement of the cast stone bands around the building with new materials that are less likely to chemically react with the existing building and its surrounding environment. We also recommend periodic inspection of all of the building's exterior movement joints, with replacement of sealants and backer rod as necessary to maintain a watertight condition.

Although there are no known or observed issues with the natatorium roof, the life expectancy of a natatorium roof is approximately twenty years; thus, we recommend monitoring the roof for replacement in approximately eight to ten years.

INTERIOR FINISHES RECOMMENDATIONS

Generally, the interior of the facility is in excellent condition, with regular and effective maintenance and cleaning clearly visible. The vast majority of visible concerns of the interior of the facility pertain to aquatic systems and features, which are covered separately elsewhere in this report.



We recommend replacement of the operable wall system in the upper level multi-purpose room with new panels and pocket doors within the next three years, and replacement of laminate flooring in these areas with a better-performing material within the next three years. Many facilities are choosing to replace laminate flooring with high-performing luxury vinyl tile systems with great success.

As several stains were noted at the Fitness Center ceilings at the time of our assessment, areas above the ceiling should be investigated for leaks from either the roof assembly or mechanical/fire protection systems. Once the cause of the leaks are identified and corrected, ceiling tiles should be replaced. (NOTE: As of July 2015, these items have been addressed)

MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION RECOMMENDATIONS

The major equipment including the water cooled chillers, fluid coolers, boilers, domestic hot water tanks, tube bundles, air handlers, energy recovery units, pool dehumidification units, pumps and other hydronic piping systems are still in use and are generally in good condition. The introduction of an evacuator system in the natatorium would address concerns regarding chloramine odors.

The electrical system is in good condition and the lighting is functioning well. We recommend using LED technology with digital lighting controls, where applicable, for future lighting replacement. The life safety sprinkler and fire alarm systems are fully functional.

The plumbing systems are worn, but in good condition, and will eventually need to be upgraded to low water use fixtures. One surprising fact is that the pool heat exchanger corroded from the inside out on the shell side which is heating hot water. This leads our assessment team to question the water treatment regimen for the facility. The water treatment is very important to prolong the life of the piping, pumps and heating equipment. The domestic hot water heating system is 88% efficient and is good for the age of the building.

Sections of gas and fire protection piping and associated valves that are severely corroded should be replaced. Sections of such piping that exhibit moderate corrosion should be painted with a high-quality epoxy coating.

AQUATICS RECOMMENDATIONS

As previously mentioned in the Mechanical Systems section of this Assessment, installation of a new source capture evacuation system is recommended for the natatorium area to reduce chloramine odors as soon as possible. Once incoming water chemistry is further researched and any issues appropriately addressed via chemical dosing, the existing plaster finishes should be removed, the shell properly prepared, and new finishes should be installed at both pools. Gutter grating at both pools is severely stained, has several areas with sharp edges that pose safety hazards, and should be replaced as soon as possible. Dive stands should be cleaned and re-finished to prevent further corrosion. Existing stainless steel railings and deck equipment should be thoroughly cleaned and an aggressive cleaning regimen established; this may become less of an ongoing concern once a chloramine evacuation system is introduced. Finally, consideration should be given to replacing the existing sand filtration systems with new regenerative DE systems, as the existing filtration systems exhibit numerous issues and require frequent maintenance.

COST SUMMARY OF IMPROVEMENTS

Cub Run RECenter Facility Assessment Improvement Plan	
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$225,000
BUILDING ENVELOPE	\$55,060
INTERIOR FINISHES	\$65,055
MECHANICAL	\$685,170
ELECTRICAL	\$0
PLUMBING	\$2,500
FIRE PROTECTION	\$10,000
AQUATICS	\$857,986
	\$3,353,050

GEORGE WASHINGTON RECENTER ASSESSMENT

George Washington RECenter is located at 8426 Old Mount Vernon Road in Alexandria. The facility opened in 1988. Significant renovations took place to the facility in 2005 and 2006, during which the roof, HVAC, and pool dehumidification equipment were replaced. The facility is approximately 18,000 square feet, and includes a 25-yard x 25-yard pool with two diving boards, spa, spectator seating, and outdoor sundeck; locker rooms; multi-purpose/party room; and lobby which incorporates several pieces of fitness equipment. The facility is located on a wooded site adjacent to Riverside Elementary School.

SITE RECOMMENDATIONS

Larger signage, potentially with electronic message board functionality, should be considered for the park entrance at Mount Vernon Road to improve visibility and wayfinding to the recreation center facility. Re-paving of the parking lot including correction of drainage issues is necessary within the next three years. We recommend replacement of all of the concrete curbing within the parking lot within the next five years, and installation of a detectable warning surface in a contrasting color as required by ADAAG at the curb ramp near the facility entrance. If students use the facility after school (we observed at least 15 children waiting for the facility to open at the time of our assessment), a separate bicycle parking area should be created in an area that does not conflict with persons walking into or out of the facility.

BUILDING ENVELOPE RECOMMENDATIONS

The scope and extent of issues encountered with the exterior walls and skylight are serious enough in nature that serious consideration should be given to replacing the entire building with a new structure



that would address each of the issues identified. A new structure would also have the benefit of being much more energy-efficient by virtue of increased insulation values in wall and roof assemblies.

If it is not possible to replace the George Washington RECenter building within the next five to ten years or it is not decommissioned, exterior walls should be thoroughly cleaned and dried to remove efflorescence. Since the cause of the efflorescence observed is likely related to the natatorium air handling system operating under positive pressure, the air handling system should be modified and/or replaced with a negative pressure system prior to repairing and cleaning the walls to ensure that vapor drive to the exterior of the building does not again cause efflorescence.

Existing aluminum framing and glazing at the natatorium should be removed and replaced with thermally broken frames with insulating glass within the next three years. Secondary exterior doors and frames should be removed and replaced with new 14 gauge G90 galvanized door and frame units which will provide better weather resistance and protection against intrusion. Finally, the entire skylight assembly should be removed and replaced. Newer, thermally broken aluminum frames with multi-layer polycarbonate panel skylights do not experience the UV degradation and yellowing that translucent fiberglass systems often exhibit, and are typically designed to allow replacement of individual polycarbonate panels without removing the entire skylight assembly.

INTERIOR FINISHES RECOMMENDATIONS

As with the building envelope recommendations, the timing and necessity of repair and replacement of interior finish components is somewhat dependent on FCPA's long-term plans for the George Washington RECenter. If the facility is planned to be replaced with a new building within the next five to ten years or is decommissioned, we would recommend replacing and maintaining finishes only as required to keep the facility operational and code compliant.

If it is not possible to replace the George Washington RECenter building within the next five to ten years or it is not decommissioned, we recommend updating the facility's locker rooms to include private shower compartments in lieu of the gang showers currently present. Modifications to the layout of the men's locker room should be made to allow for accessibility to the sauna for persons with disabilities. We also recommend replacement of the ceramic mosaic flooring at the pool deck with new, slip-resistant tile. Lay-in ceiling systems and lighting throughout the facility should be replaced to improve illumination levels, increase energy efficiency, and remove damaged elements.

Lighting throughout the natatorium should be replaced with new LED lighting similar to that installed at other RECenter natatorium facilities.

The Consulting Team recommends that any major interior renovation work be sequenced to occur after the recommended exterior repairs to ensure that the new finishes are not damaged by moisture intrusion, condensation, or leaks.

MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION RECOMMENDATIONS

Much of the original equipment has been replaced, except for the hot water boilers and associated piping which are original. The boilers are original to the facility and need to be replaced. The pool heat exchanger requires replacement within the next three years. The mechanical system is made up of packaged rooftop HVAC units with DX cooling and HW heating coils, most of which also require replacement within the next three to five years. A DDC control system is recommended to manage the system and temperature levels at the time of replacement.

The existing main switchboard and main distribution panel should be replaced within the next three years. The existing lighting system is in need of replacement. New LED lights are being installed above the 25 meter pool water surface this summer. We recommend using LED technology with digital lighting controls, whenever possible.

The plumbing system is generally in good condition. The domestic hot water heating system is old but functional; it should be replaced with a new high efficiency condensing boiler when replaced. The plumbing fixtures and flush valves should be replaced in approximately ten years.

Sections of gas and fire protection piping that are severely corroded should be replaced. Sections of such piping that exhibit moderate corrosion should be painted with a high-quality epoxy coating.

AQUATICS RECOMMENDATIONS

Sections of perimeter gutter grating that are cracked, stained, and with sharp edges should all be replaced. The existing pressure sand filtration system is nearing the end of its expected service life; we recommend replacement of this system with a regenerative DE system within the next five years. Finally, the pool finish should be removed, the shell surface properly prepared, and a new finish applied within the next two years.

COST SUMMARY OF IMPROVEMENTS

George Washington RECenter Facility Assessment Improvement Plan	
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$240,000
BUILDING ENVELOPE	\$445,000
INTERIOR FINISHES	\$295,250
MECHANICAL	\$1,140,000
ELECTRICAL	\$430,000
PLUMBING	\$325,000
FIRE PROTECTION	\$30,000
AQUATICS	\$190,060
	\$3,115,250



LEE DISTRICT RECENTER ASSESSMENT

Lee District RECenter is located within the 139-acre Lee District Park in Franconia. The facility opened in 1980. Significant additions and renovations took place to the facility in 1988 (gymnasium, dance room, and weight room), 1997 (new roofs and HVAC), and 2004 (HVAC and locker rooms), with several smaller renovation projects and system replacements undertaken over the years. The facility is approximately 83,617 square feet, and includes a 50-meter x 25-yard pool with two one-meter diving boards, spectator seating, and outdoor sundeck; large gymnasium; locker rooms; racquetball/squash courts; dance room; multi-purpose rooms; and fitness center. Unique to this location among the nine RECenter facilities is a multiple classroom pre-school facility.

SITE RECOMMENDATIONS

The Consulting Team recommends replacement of all of the concrete curbing within the parking lot within the next ten years, re-paving of the parking lots within the next five years, and replacement of the site furniture near the building entrance within the next two years. The concrete walkway between the northwest parking lot and building entrance should be checked for compliance with ADAAG and, if necessary, modified to include handrails and level landing areas along its length. Finally, consideration should be given to paving the unpaved area around the lower level emergency egress and mechanical room access and dumpster area to improve drainage and sanitation.

BUILDING ENVELOPE RECOMMENDATIONS

The severe saturation of the exterior concrete block and multiple areas of severe moisture-related staining and algae growth indicates that significant moisture has entered the wall assembly at most locations. This moisture intrusion combined with a blockage or absence of through-wall flashings intended to remove moisture from inside a wall cavity results in saturation of the insulation within the exterior wall, effectively eliminating its insulation capacity. Staff commented that temperature is difficult to control inside the building and utility costs for HVAC are rather high. It is not unreasonable to conclude that these issues may be related.

Although the exterior walls do not appear to be load-bearing from the structural information provided to us, it would be extremely difficult to remove the outer wythe of exterior masonry, replace existing insulation, and replace the saturated exterior masonry with new materials with better water-repellant properties. Nevertheless, this may be the only surefire way to eliminate this issue. Further research and testing is required to ascertain the exact extent of this issue and the most sensible repair strategy. An alternative approach may be to alter the exterior walls to cut in new open head joints with insect screens to promote drying of the cavity and exterior wythe of masonry.

Secondary exterior doors and frames that are damaged should be removed and replaced with new 14 gauge G90 galvanized door and frame units which will provide better weather resistance and protection against intrusion. Damaged areas of metal panel and metal soffit should be replaced with new materials; it may be necessary to replace all of the panel and soffit materials to ensure consistent color around the building as most of the materials are significantly faded. Column covers outside the curved wall at the addition should be replaced, with exposed corroded columns evaluated for possible section loss.

Existing PUF roofing should be inspected on a regular basis for cracking and deterioration, particularly at wall-roof intersections, equipment curbs, and changes in roof slope/pitch. The internal gutters at the gymnasium and gutter at the southwest wall of the natatorium should likewise be inspected on a regular basis for signs of water intrusion at both the exterior and interior of the building.

INTERIOR FINISHES RECOMMENDATIONS

Although most of the interior of the facility is in acceptable condition, staff reports that the facility “feels very tired”. Selective upgrades to high-traffic areas such as lobbies, circulation areas, locker rooms, and preschool rooms will likely enhance public perception of the facility and increase memberships and revenue. Re-working of the facility’s entrance sequence and a re-designed, updated control desk is recommended to improve appearance and security.

The facility’s elevator is at the end of its useful service life and requires frequent maintenance, and should be replaced with a new, code-compliant elevator. Finally, the telescoping bleachers in the natatorium should eventually be replaced despite being fairly new; consideration should be given to renovating the seating areas to include fixed seating as is present in FCPA’s newer centers.

We recommend that any major interior renovation work be sequenced to occur after the recommended exterior repairs to ensure that the new finishes are not damaged by moisture intrusion, condensation, or leaks.

MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION RECOMMENDATIONS

A majority of the original equipment has been replaced at some time in the recent past. There are two 4-pipe central plants. One serves the original building. The other serves the gym addition. The major equipment including the chillers, boilers, pumps have been replaced at different times over the years. However, the chilled water and hot water piping systems are still in use. The central plants will be in need of replacement in the next five years. The older rooftop HVAC equipment and gym air handling unit are at the end of their useful life and require replacement. We recommend adding a new DDC EMS control system to the building.

The electrical power distribution system is old but fully functional. The main distribution panel appears to have been replaced; however, the rest of the panels are beyond their life expectancy and should be replaced at the time of the next major renovation. Power receptacles appear to be in compliance with code with GFCI receptacles installed within 6 feet of any plumbing fixtures. Much of the existing lighting system is original to the facility and in need of replacement. Some lights have already been replaced with LED. We recommend using LED technology with digital lighting controls, whenever applicable.

The plumbing system piping appears to be in good condition, but the domestic hot water heating system is old, inefficient, and in need of replacement. The plumbing fixtures are old and should be upgraded with low water use fixtures.

Sections of gas and fire protection piping that are severely corroded should be replaced. Sections of such piping that exhibit moderate corrosion should be painted with a high-quality epoxy coating.

AQUATICS RECOMMENDATIONS

Sections of concrete pool deck that are severely cracked and/or without proper slope to drains should be replaced as soon as possible to prevent any potential safety concerns. The existing sand pressure filtration system is nearing the end of its expected service life; we recommend replacement of this system with a regenerative DE system within the next five years. Exposed structure in pool and spa equipment rooms should be re-coated with a high-quality epoxy coating to prevent further corrosion due to chloramines. Finally, corroded and underweight sections of piping should be replaced soon.



COST SUMMARY OF IMPROVEMENTS

Facility Assessment Improvement Plan	
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$470,000
BUILDING ENVELOPE	\$385,130
INTERIOR FINISHES	\$225,065
MECHANICAL	\$285
ELECTRICAL	\$110
PLUMBING	\$452,575
FIRE PROTECTION	\$15,010
AQUATICS	\$255,125
	\$16,095,000

OAK MARR RECENTER ASSESSMENT

Oak Marr RECenter is located at 3200 Jermantown Road in Oakton. The facility opened in 1988, and a major expansion and renovation project was recently completed in 2014. The facility is approximately 68,570 square feet, and includes a 50-meter x 25-yard pool with diving boards and ramp, spectator seating, and outdoor sundeck; spa; locker rooms; racquetball/squash courts; multipurpose rooms; aerobics /dance rooms; childcare room; and fitness center. The facility is located within a 59-acre park site that includes soccer fields, a miniature golf course, and driving range.

SITE RECOMMENDATIONS

No items of an urgent nature were identified as part of our assessment. Parking appears to be potentially lacking given the size and use of the facility during peak periods, but staff did not identify parking as a concern in our discussions.

BUILDING ENVELOPE RECOMMENDATIONS

Areas of efflorescence at the exterior wall assembly should be thoroughly cleaned using a masonry cleaner approved by the manufacturer of the original brick. Since the efflorescence is likely caused by positive pressure from the natatorium HVAC units driving moisture through the wall assembly, steps should be taken to correct the pressure issue as the efflorescence would likely occur again after cleaning without correction to the HVAC system.

Aluminum framing and glazing at the natatorium sun deck exhibits severe sealant deterioration and condensation and should be replaced within the next two years with frames and doors that are thermally

broken. Thermally broken doors are typically considerably more expensive than non-thermal units but are essential in controlling condensation in an indoor pool environment.

Plaster soffits at the sun deck outside the natatorium should be repaired and/or replaced within the next five years.

Finally, PUF roofing at the natatorium should be evaluated for positive drainage and slope towards drains. Cracks in the roofing system at the perimeter of the skylight curb should be repaired. Any blockage of the skylight's flashing by the application of the PUF system should be removed and the flashings thoroughly cleaned.

INTERIOR FINISHES RECOMMENDATIONS

Overall, the facility is in very good condition at the interior. The new fitness center and studio facilities in the building addition are among the most attractive and up-to-date of any our assessment team has observed in our work across the United States.

Drainage issues in locker rooms and restrooms should be corrected as soon as possible. Areas of damaged and worn tile at the indoor pool should be removed and replaced as worn tile represents a safety issue due to its loss of slip resistance.

The ceiling and lighting in the upper level multipurpose room (pottery/crafts room) should be replaced. (Since the time of writing this initial assessment report, FCPA staff indicate that this area is now in acceptable condition)

Finally, a comprehensive cleaning and re-painting of the exposed ceiling structure in the natatorium is necessary to inhibit further corrosion and protect the structure. Lighting in the natatorium should be replaced with energy-efficient LED units following this ceiling and structure work. As the natatorium is the largest of any of FCPA's RECenter facilities, considerable energy savings would be realized from this effort.

We recommend that any major interior renovation work be sequenced to occur after the recommended exterior repairs to ensure that the new finishes are not damaged by moisture intrusion, condensation, or leaks.

MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION RECOMMENDATIONS

Some of the original heating plant equipment and systems is still in use at the original portion of the building. Several pieces of equipment associated with the original building require replacement within the next three to five years. The hot water boilers appear to be original equipment and are close to the end of their useful life; replacement within the next three years is necessary.

The electrical power distribution system is old but fully functional. Upgrades to replace the main switchgear and distribution panel are recommended within the next five to ten years to better serve newer equipment. Conversion of the original building's lighting to LED technology (particularly in the natatorium) with the addition of a digital lighting control system for the entire facility is highly recommended within the next three to five years to improve lighting quality and energy efficiency.

The domestic hot water heating system is inefficient and should be replaced with a new high efficiency system within the next three to five years. Drains causing backups and other issues should be investigated via video and any issues discovered addressed as appropriate. Sections of gas and fire protection piping



that are severely corroded should be replaced. Sections of such piping that exhibit moderate corrosion should be painted with a high-quality epoxy coating.

AQUATICS RECOMMENDATIONS

Diving board surfaces and corroded stair structures should be replaced and dive stands re-finished to remove corrosion as soon as possible. The existing plaster finish at the pool should be removed, the shell properly prepared, and a new finish applied within the next two to three years. As mentioned in the Interior Finishes section of this Assessment Report, the entire exposed roof deck/ceiling structure at the natatorium should be properly prepared and coated with a high-quality epoxy coating to inhibit corrosion and peeling currently in process. Spot replacement of tile at the pool deck should be undertaken to replace tiles that have lost their slip resistance. Ventilation should be upgraded in chlorine and acid storage rooms to inhibit further corrosion of wall and roof deck surfaces from chloramines. Finally, the existing pressure sand filtration system is nearing the end of its expected service life and will require replacement soon; replacement with a regenerative DE system is recommended.

COST SUMMARY OF IMPROVEMENTS

Oak Marr RECenter Facility Assessment Improvement Plan	
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$0
BUILDING ENVELOPE	\$280,180
INTERIOR FINISHES	\$45,045
MECHANICAL	\$545,265
ELECTRICAL	\$100
PLUMBING	\$505,070
FIRE PROTECTION	\$20,010
AQUATICS	\$568,640
	\$10,261,000

PROVIDENCE RECENTER ASSESSMENT

Providence RECenter is located at 7525 Marc Drive in Falls Church. The facility opened in 1982. Significant additions and renovations took place to the facility in 1987 (several multi-purpose rooms and dance room), 1998 (fitness center), and 2002 (locker rooms), with several smaller renovation projects and system replacements undertaken over the years. The facility is approximately 63,000 square feet, and includes a 25-meter x 25-yard pool with two one-meter diving boards, spectator seating, and outdoor

sundeck; locker rooms; racquetball/squash courts; dance room; multi-purpose rooms; and fitness center. The facility is located within Providence Park, a 13-acre site.

SITE RECOMMENDATIONS

Larger signage, potentially with electronic message board functionality, should be considered for the intersection of Arlington Boulevard and Jaguar Trail to improve visibility and wayfinding to the recreation center facility. We recommend replacement of all of the concrete curbing within the parking lot within the next ten years, and replacement of the concrete plaza leading to the entrance within the next ten years. Asphalt paving east of the building at the employee parking area should be replaced within three years. A separate bicycle parking area should be created in an area that does not conflict with persons walking into or out of the facility.

BUILDING ENVELOPE RECOMMENDATIONS

Consideration should be given to removing and replacing all of the existing stucco exterior finish with a more durable, less maintenance-intensive exterior finish that is less susceptible to cracking. Damaged and corroded metal wall panels should be removed and replaced.

Existing aluminum framing and glazing at the original portions of the building should be removed and replaced with thermally broken frames with insulating glass. Secondary exterior doors and frames should be removed and replaced with new 14 gauge G90 galvanized door and frame units which will provide better weather resistance and protection against intrusion.

Existing PUF roofing should be inspected on a regular basis for cracking and deterioration, particularly at wall-roof intersections, equipment curbs, and changes in roof slope/pitch. The source of roof leaks at the spa area should be investigated and repaired.

INTERIOR FINISHES RECOMMENDATIONS

Although quarry tile throughout circulation areas is in acceptable condition, the grout is severely stained and the appearance of the material is dark and dated. Consideration should be given to replacing all of these materials with new flooring that will reduce maintenance surrounding existing grout issues and brighten the overall look of the facility. Carpeting throughout the facility in office and lower level circulation areas should be replaced (this has been completed as of July 2015). Tile at the natatorium floors is severely worn and requires replacement within the next three years. Public restrooms should be completely renovated to address worn finishes, undesirable odors and accessibility issues.

Lay-in ceiling systems and lighting throughout the facility should be replaced to improve illumination levels, increase energy efficiency, and remove damaged elements. The facility's elevator is at the end of its useful service life and requires frequent maintenance, and should be replaced with a new, code-compliant elevator. Finally, the telescoping bleachers in the natatorium should be replaced; consideration should be given to renovating the seating areas to include fixed seating as is present in FCPA's newer centers.

The Consulting Team recommends that any major interior renovation work be sequenced to occur after the recommended exterior repairs to ensure that the new finishes are not damaged by moisture intrusion, condensation, or leaks.



MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION RECOMMENDATIONS

A majority of the original equipment has been replaced at some time in the recent past. However, the hot water boilers, pumps, pool heat exchanger and other hydronic piping systems are still in use. The central hot water heating plant will be in need of replacement in the next five years. The rooftop HVAC equipment has DX cooling and either HW heating or gas-fired heating. Replacement of the pool heat exchanger will also be required within the next five years. Finally, the introduction of a direct digital control system for the building's entire HVAC system is recommended for energy conservation purposes.

The electrical power distribution system is old but fully functional. The electrical gear appears mostly original. Since the panels are old, they should be replaced at the time of the next major renovation. The receptacles appear to meet code with GFCI receptacles located within 6 feet from any plumbing fixtures. The existing lighting system has been upgraded over time. The original system used T-12 florescent bulbs. These have been replaced with T-8 or T-5 lamps. Some fixtures above the pool have been replaced with LED fixtures. We recommend using LED technology with digital lighting controls, when applicable.

The plumbing system is in good condition, but the plumbing fixtures are original and the flush valves have been retrofitted for low flow use. Replacement of fixtures and fittings is recommended.

Sections of gas and fire protection piping that are severely corroded should be replaced. Sections of such piping that exhibit moderate corrosion should be painted with a high-quality epoxy coating.

AQUATICS RECOMMENDATIONS

As indicated in the Interior Finishes section of this Assessment Report, we recommend removal and replacement of all existing ceramic tile at the pool deck within the next three years to improve slip-resistance and drainage. Exposed structural bracing at the roof deck above the pool should be prepared and coated with a high-quality epoxy coating as soon as possible, ideally during the next maintenance shutdown. Exposed structure in pool and spa equipment rooms should be re-coated with the same product to prevent further corrosion due to chloramines. Worn and damaged gutter/coping stones should be replaced within the next two years. Corroded and underweight sections of piping should be replaced soon. Finally, the sand filter system will likely require replacement within the next five years given its age.

COST SUMMARY OF IMPROVEMENTS

Providence RECenter Facility Assessment Improvement Plan	
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE	\$230,000
BUILDING ENVELOPE	\$440,130
INTERIOR FINISHES	\$265,110
MECHANICAL	\$465,090
ELECTRICAL	\$450,040
PLUMBING	\$5,035
FIRE PROTECTION	\$15,010
AQUATICS	\$235,135
	\$7,572,500

SOUTH RUN RECENTER ASSESSMENT

South Run RECenter is located at 7550 Reservation Drive in Springfield. The facility opened in 1988. Significant renovations and additions took place to the facility in 2008, including a large fitness center addition with several smaller renovation projects and system replacements undertaken over the years. The facility is approximately 41,450 square feet, and includes a 25-yard x 25-yard pool with diving boards and ramp, spectator seating, and outdoor sundeck; locker rooms; racquetball/squash courts; multipurpose rooms; aerobics/dance rooms; and fitness center. Adjacent to the facility is a 22,395 sf Field House which is used exclusively as an indoor turf venue. The facility is located within a 182-acre park site that includes numerous trails, five soccer fields, three baseball/softball fields, two tennis courts, and two outdoor basketball courts.

SITE RECOMMENDATIONS

Taller, more visible signage should be considered for the park entrance at Fairfax County Parkway to improve visibility and wayfinding to the recreation center facility. Although there are no immediate areas of concern, concrete curbing within the parking lot should be regularly inspected for further deterioration.

The landscape bed in front of the north elevation of the building is pitched towards the building and is creating a number of water intrusion issues at that exterior wall. Re-grading along this entire section is required to prevent future issues. (As of July 2015, steps are being taken to address this issue)



Consideration should be given to paving the Field House parking lot in the future if it experiences frequent use.

BUILDING ENVELOPE RECOMMENDATIONS

Although exterior walls exhibit some degree of moisture saturation during wet weather, the extent of the saturation is not as severe as seen at the Lee District facility. Split face concrete masonry units are inherently very porous, and the appearance of saturation in itself is not necessarily an issue. It appears that flashings exist to divert moisture out of the wall cavity once it enters. If the walls become fully dry on the north and east sides of the building in the normal course of building operation, there is likely not a significant issue. Walls that stay consistently wet should be evaluated for saturation of cavity wall insulation with a thermal scanner to determine next courses of action.

A negative slope toward the building on the north side of the facility has created a number of issues with respect to building leakage and damage to existing conditions. These conditions should be repaired when the area is re-graded. (As of July 2015, these areas are being addressed by FCPA)

Damaged sections of metal wall panels, the overhead door, and the overhead door operator at the Field House should all be replaced. Existing aluminum framing and glazing at the entrance, multi-purpose rooms, and gymnasium should be removed and replaced with thermally broken frames with insulating glass. Secondary exterior doors and frames should be removed and replaced with new 14 gauge G90 galvanized door and frame units which will provide better weather resistance and protection against intrusion.

Finally, all of the existing roofing should be replaced at the natatorium and racquetball court (ballasted EPDM) sections of the building. We recommend removal of the existing roofing and insulation as it is probable that much of the existing insulation is saturated with moisture and therefore no longer able to offer thermal protection. A new single-ply membrane roof with vapor barrier and tapered insulation will offer an expected service life of 25 to 30 years, considerably reduced maintenance, and much improved energy efficiency by virtue of increased insulation values.

INTERIOR FINISHES RECOMMENDATIONS

Most of the interior of the facility is well maintained and in good condition.

Replacement of the locker room ceiling and suspension system is recommended within the next five years to eliminate sagging tile and corroded suspension systems. Painting of the natatorium ceiling/roof structure within the next three years is recommended to inhibit the minor corrosion observed at these areas.

Suspended metal halide lighting fixtures at the upper level multi-purpose rooms require replacement for illumination quality and energy efficiency reasons.

Although the handrails at the main stairway between the two levels of the facility were code compliant at the time of construction, the “ladder” configuration of the handrails makes them a safety concern as users (especially children) may be able to climb up the handrails and fall over to the floor below. We recommend replacement of these handrails with a new system that complies with current code requirements. A handrail system similar to that installed at the fitness center would be appropriate for this application and would help to tie the design of the addition and original building together in a more cohesive fashion.

Stained ceiling tiles within the fitness center should be replaced once the source of the apparent leaks causing the stains is located and repaired.

MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION RECOMMENDATIONS

Much of the mechanical equipment for the facility was replaced and/or upgraded in 2008 when the fitness center addition was constructed. The hot water heating boilers and pumps were also replaced at this time. However, some of the original equipment and air distribution systems are still in use from the original portion of the building. The piping and some hydronic specialties are rusted badly and in need of replacement.

There is a duct serving the administration area which passes through the natatorium. This duct supplies 55 degree air and is sweating badly in the humid, warm pool environment, causing a slipping hazard in the spectator area. This ductwork needs to be replaced with a new insulated duct with vapor barrier to prevent moisture infiltration and sweating.

The electrical power distribution system is 30 years old but fully functional. It may be difficult to get parts for the switchboard, and it will eventually need to be replaced. The existing lighting system has been upgraded over time, and there are a number of LED fixtures already installed. We recommend using LED technology with digital lighting controls, where applicable, for future lighting replacement.

The plumbing system is in good condition, but needs to be upgraded for low water use fixtures. The domestic hot water heaters were replaced in 2010, but the bottoms of the storage tanks appear to be rusting and should be monitored for further corrosion which would necessitate replacement.

Sections of gas and fire protection piping that are severely corroded should be replaced. Sections of such piping that exhibit moderate corrosion should be painted with a high-quality epoxy coating.

AQUATICS RECOMMENDATIONS

Sections of tile pool deck that are severely cracked and/or without proper slope to drains should be replaced as soon as possible to prevent any potential safety concerns. The existing high rate sand filtration system is nearing the end of its expected service life; we recommend replacement of this system with a regenerative DE system within the next five years. Exposed structure in pool and spa equipment rooms should be re-coated with a high-quality epoxy coating to prevent further corrosion due to chloramines. Finally, corroded and underweight sections of piping should be replaced soon.



COST SUMMARY OF IMPROVEMENTS

South Run RECenter Facility Assessment Improvement Plan	
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 20 years</i>
SITE IMPROVEMENTS	\$85,000
BUILDING ENVELOPE	\$580,000
INTERIOR FINISHES	\$723,500
ELECTRICAL	\$855,000
PLUMBING	\$219,000
FIRE PROTECTION	\$30,000
AQUATICS	\$330,000
	\$3,387,500

SPRING HILL RECENTER ASSESSMENT

Spring Hill RECenter is located at 1239 Spring Hill Road in McLean. The facility opened in 1988, and a major expansion and renovation project was recently completed. The facility is approximately 75,000 square feet, and includes a 25-meter x 25-yard pool with diving boards and zero-depth entry, spectator seating, and outdoor sundeck; spa; locker rooms; racquetball/squash courts; multipurpose rooms; aerobics /dance rooms; childcare room; fitness center, and gymnasium with running track. The facility is located within a 46-acre park site that includes soccer fields, baseball fields, and a playground.

SITE RECOMMENDATIONS

Parking was not identified as a concern by RECenter staff, but should be monitored for adequacy during periods of peak use of the building and site. The concrete sidewalks leading from the accessible parking spaces to the building entrance should be evaluated for compliance with ADAAG requirements for cross slope, running slope, and gaps in excess of 1/2 inch in width, with sections repaired/replaced as appropriate. Painted curb sections should be re-painted within the next two years, and sections of deteriorated curb repaired or replaced within the next three years. Finally, additional bicycle loops should be considered near the main entrance to the facility.

BUILDING ENVELOPE RECOMMENDATIONS

Steps should be taken to dry the existing split-face masonry units and determine the cause of moisture infiltration in areas that are exhibiting saturated masonry. Once these issues are identified and corrected, application of a high-quality water-repellent coating is recommended to prevent any further deterioration of the masonry.

Aluminum framing and glazing at the original portions of the building exhibit moderate to severe condensation at many times of the year and should be replaced within the next five years with frames, glazing, and doors that are thermally broken. Thermally broken doors are typically considerably more expensive than non-thermal units, but are essential in controlling condensation in an indoor pool environment.

Secondary egress doors and frames at the original portions of the building are moderately to severely corroded and require replacement.

Existing membrane roofing at the natatorium and original portions of the building exhibits several moisture-related concerns and appears to be at the end of its expected service life; consequently, all areas of this roofing should be replaced within the next three years. Finally, the existing fiberglass translucent sandwich panel skylight and canopy is severely deteriorated and discolored, and should be replaced within the next three years. No issues of concern with regard to the building envelope were noted at the newly constructed addition.

INTERIOR FINISHES RECOMMENDATIONS

Overall, the facility is in very good condition at the interior in areas that have been recently renovated.

Drainage issues in locker rooms and restrooms should be corrected as soon as possible. Although the tile in many of the newly renovated locker areas is brand new, the slip-resistance of the tile and its tendency to collect dirt should be further evaluated over the next year or so. Areas of damaged and worn tile at the indoor pool should be removed and replaced as worn tile represents a safety issue due to its loss of slip resistance (please refer to the Aquatics section of this Assessment report for further information and cost details)

The addition of wire or polycarbonate guards at exit signs and horn/strobe devices in the gymnasium is recommended to prevent possible damage from ball and human impact. The edge-lit exit signs above doors may need to be replaced with conventional signs to accomplish this. (It may be possible to simply exchange signs from another location in the facility to avoid purchasing replacement fixtures)

A comprehensive cleaning and re-painting of the exposed precast concrete ceiling structure in the natatorium is necessary within the next three years to protect the structure. We recommend painting in a white or much lighter blue-green color to brighten the space.

The telescoping bleachers in the natatorium should be replaced; consideration should be given to renovating the seating areas to include fixed seating as is present in FCPA's newer centers.

Finally, we recommend replacement of the facility's hydraulic elevator within the next two years, as it has reached the end of its expected service life and requires frequent repair.

We recommend that any major interior renovation work be sequenced to occur after the recommended exterior repairs to ensure that the new finishes are not damaged by moisture intrusion, condensation, or leaks.

MECHANICAL/ELECTRICAL/PLUMBING/FIRE PROTECTION RECOMMENDATIONS

Although most of the facility's packaged HVAC units have been replaced with new equipment, the central chiller and boiler plant have some original equipment in use. The chiller and cooling tower have been replaced, but the boilers and heating system are in need of replacement. We recommend adding a DDC electronic control system to control both the addition and the original building systems.



The lighting system in the original, non-renovated portions of the facility is being upgraded to T-8 fluorescent or LED as rooms or areas are modernized. We recommend using LED technology with digital controls where applicable in the original portions of the building. Existing original power panels should be replaced within the next ten years.

The domestic hot water heating system is inefficient, is at the end of its useful life, and should be replaced with a new high efficiency system. The porcelain fixtures in the original, non-renovated portions of the facility should be replaced. Drainage issues in locker rooms and toilet areas require repair and further evaluation with video techniques to address the causes of backups reported by facility staff.

Sections of gas and fire protection piping in the original portions of the facility that are severely corroded should be replaced. Sections of such piping that exhibit moderate corrosion should be painted with a high-quality epoxy coating.

AQUATICS RECOMMENDATIONS

Diving board surfaces and dive stands should re-finished to remove corrosion as soon as possible. The existing plaster finish at the pool should be removed, the shell properly prepared, and a new finish applied within the next two to three years. Stainless steel handrails and deck equipment are severely corroded from chloramine exposure and require immediate replacement. Spot replacement of tile at the pool deck should be undertaken to replace tiles that have lost their slip resistance. Ventilation should be upgraded in chlorine and acid storage rooms to inhibit further corrosion of wall and roof deck surfaces from chloramines. Re-grouting of tile at the spa is required within the next two to three years Finally, the existing pressure sand filtration system for the pool is nearing the end of its expected service life and will require replacement soon; replacement with a regenerative DE system is recommended.

COST SUMMARY OF IMPROVEMENTS

Spring Hill RECenter Facility Assessment Improvement Plan	
<i>Recommended Areas of Improvement</i>	<i>Capital Improvement Funding needed over the next 5 years</i>
SITE	\$40,000
BUILDING ENVELOPE	\$843,000
INTERIOR FINISHES	\$302,000
MECHANICAL	\$1,745,000
ELECTRICAL	\$370,000
PLUMBING	\$795,000
FIRE PROTECTION	\$15,000
AQUATICS	\$338,500
	\$4,448,500

FACILITY ASSESSMENT COST SUMMARY

The following chart summarizes the cost of the facility assessment recommendations. Of significant note is that nearly 50% of the total cost of improvements are recommended to occur within the next five years, further underscoring the primary need to maintain FCPA's existing parks and recreation system.

FACILITY ASSESSMENT COST SUMMARY			
Facility	5 Year Improvement Total	20 Year Improvement Total	% of Total Cost within 5 Years
Audrey Moore	\$6,062,500	\$11,215,000	54.1%
Cub Run	\$2,440,550	\$3,353,050	72.8%
George Washington	\$2,862,750	\$3,115,250	91.9%
Lee District	\$6,542,500	\$16,095,000	40.6%
Oak Marr	\$3,243,500	\$10,261,000	31.6%
Providence	\$2,740,000	\$7,572,500	36.2%
South Run	\$3,025,000	\$3,387,500	89.3%
Spring Hill	\$4,448,500	\$8,471,000	52.5%
TOTAL	\$31,365,300	\$63,470,300	49.4%



APPENDIX E - QUALITATIVE INPUT

VALUED FACILITIES, PROGRAMS AND SERVICES BY USER GROUP/STAKEHOLDER

The following provides a summary of the most valued facilities, programs and services as defined by user group/stakeholders.

- Public meeting input: Parks, equestrian facilities, dog walking, walking, running, Parktakes, hiking, concerts, adult & youth recreation programs
- Sports focus groups: Synthetic turf
- Housing focus groups: Parks - Hidden Oaks, Mason District, Frying Pan Farm Park, Lee District Park, Ossian Hall, Burke Lake, Occoquan, Wakefield, Providence, Clemyjontri, Van Dyke, Water Mine, Bull Run, South Run. Walking, jogging, and watching nature. Spray grounds, swings. Fishing. Movie nights. Classes and swimming lessons. Golf. Youth basketball. Picnicking. Public pools.
- 50+ focus group: Parks - Oak Marr, Burke Lake, Fountainhead, Huntley Meadows, Audrey Moore, Frying Pan Farm Park, and Green Springs. Trails for walking, dog walking, hiking, and biking; volunteering with park summer camps and other programs; RECenters (fitness & socializing) and fitness classes, strength coaching, aquatic exercise; golf; Parktakes, including classes with grandchildren; public gardens; fishing (Burke Lake and Lake Fairfax); wildlife watching; Trips and Tours program.
- Trail users focus group: Parks - Burke Lake, Azalea Park, Langley Oaks, Clemyjontri, Oak Marr; trails as connectivity between areas and for recreation, commuting, exercise, and nature-watching; nature identification; golf; hiking; biking (incl. mountain biking); kayaking; dog walking; equestrian trails; RECenters/pools; "Arts in Parks"; playgrounds; athletic fields/courts & league sports; Parktakes; mini-golf; disc golf; archaeological/historic programming and resources.
- Elected officials and board members interviews: RECenters; nature centers/trails; parks; historic preservation; concerts; community gardens; golf courses; destination parks
- Teachers focus group: Parks - Frying Pan Park, Riverbend, Bull Run, Huntley Meadows, Mason Neck, Green Springs, Lake Accotink, Colvin Run, Hidden Pond, Hidden Oaks, Meadowlark Gardens, Pamplin Park, Lake Fairfax, Belvedere Park, Mason District Park, Lawrence Park, Wolftrap; water parks. Cultural/natural resources: Manassas National Battlefield, Sully Plantation, Gunston Hall; 4-H Club Master Gardeners Program; plant identification and discussing where we might find it; Ranger presentations; Nature Fest at Herndon; using Living Classrooms; stream walks and yearly stream clean-ups; after school sessions with the Forest Park Authority; concerts

RECREATION ASSESSMENT

The following provides an assessment of the input received for the recreation programs, services and facilities provided by FCPA.

STRENGTHS

- FCPA provides clean, diverse, and safe community parks, fields, and facilities
- Parks and other facilities improve residents' quality of life: provide peaceful places, access to green space, gathering places.
- Increasing use of facilities: adult sport participation; trail use for multiple activities, (including commuting) and by a variety of people (including more retired people)
- Maps/signage are useful, where these exist
- Parktakes and RECenters are popular
- Parks are accessible

WEAKNESSES/BARRIERS

- Sport facilities
 - Adult space/time for sports facilities is limited
 - School expansion trailers impact fields
 - Fields aren't allocated evenly throughout the county
 - Inconsistent cancellation of services
 - School sports displace non-school activities during inclement weather
 - Inconsistent field use policy
 - Cost: Cost of using parks/facilities can be a barrier, in addition to the cost for transportation to facilities
- Trails:
 - Trails are not always accessible for those with limited mobility
 - Access points can be impeded by bad weather
 - RECenters: Get crowded at certain times of day (esp. morning)

NEEDS/OPPORTUNITIES

CONNECTIONS AND ACCESSIBILITY

- Better walking, biking, and transit connectivity to and within parks and facilities, and better parking availability. Consider bike share, bike education, and adult education on transit use.
- Enhanced trail connectivity and wayfinding (especially in larger parks).
- Trail accessibility for all ages and abilities, by varying length and difficulty, including wider trails for people with children, etc.
- Consider trails as part of transportation network



- Better connections to trails - "safe routes to parks" - and between facilities and neighborhoods

NEW / IMPROVED FACILITIES

- Equestrian facilities, including public lesson barns; adequate trailer parking (e.g., at Laurel Hill and Turner); more youth equestrian opportunities for lessons, shows, 4H Pony Club participation; and horse boarding facilities.
- Public cross country trails
- Off-leash dog agility area / dog parks
- Indoor facilities: More indoor gym space, indoor volleyball courts, indoor swimming pools
- Running loops
- New facilities for emerging sports
- Fields
 - More synthetic turf fields (better life span, use in inclement weather, easier maintenance)
 - Flexible/multi-use sports fields
 - Tournament space
 - More rectangular (soccer/football) fields; more baseball/softball diamonds of different sizes (50/70/90ft)
- Tracks that do not overlap or conflict with fields
- Shuffleboard courts
- Archery ranges
- RECenter in Reston
- Trails
 - Mountain bike trails with variable terrain
 - Both urban trails and natural trails
- Boat/kayak launch sites
- Age-appropriate facilities (e.g., different playgrounds for different ages; facilities for senior citizens)

IMPROVEMENTS TO EXISTING FACILITIES

- Improved field maintenance
- Better lighting
- Restrooms
- Shade (e.g., near playgrounds)
- Seating

- Equipment that is less traditional (zip lines, rock climbing, skate parks)
- Additions to existing parks instead of new parks
- Trails
 - More wayfinding/signage for trails (mile markers for race training or amount of steps until an overlook point, etc.)
 - Improved trails (all-weather), better-engineered trails, better maintenance, safer road crossings
 - Post phone number to call if a tree has fallen on the trail
 - Separation between trail users (horses, bicyclists, walkers)
- Bike racks at all facilities
- Consider making maps of parks and trails readily available for visitors or new residents

PROGRAMS / CLASSES

- Help schools and parks work together, to encourage kids to learn and be active
- Need classes that are more readily accessible
- Programs for those with unique needs, such as homeschoolers or in-home caregivers
- Classes out in communities
- Senior-focused programs (“we need programs to work on our minds”), senior sports leagues
- Educational materials (plant guides, park-specific guides, etc.) to provide teachers with information about how parks correlate with lessons

NATURAL & CULTURAL RESOURCES ASSESSMENT

The following provides an assessment of the input received for the natural and cultural programs, services and facilities provided by FCPA.

STRENGTHS

- FCPA’s conservation of natural resources is highly valued
- Living classroom program and other science programs

WEAKNESSES/BARRIERS

- Invasive species maintenance

NEEDS/OPPORTUNITIES

NATURAL RESOURCES

- Enhance biodiversity and flyways
- Edible landscaping
- Better maintenance to prevent overgrowth and invasive growth
- Environmental stewardship programs
- Greater recognition of historic and cultural resources



- Interpretive trail
- More history-based programming
- Incorporate history/archeology/education into parks, e.g., via signage
- Expand resident curator program

EDUCATION

- More hands-on learning activities for kids, incorporating more information that is directly related to curriculum (for both younger and older students); more park-to-school events; more science programming
- Access to natural areas close to school
- FCPA or related guest speakers could come to the school and make presentations on different topics, or offer in-school field trips. Specifically, presenters who know how to make age-appropriate presentations
- Teach vocational skills to teens through volunteer programs (e.g., snow plowing, planting, other light work)
- Expand partnerships with schools

PARK MANAGEMENT ASSESSMENT

The following provides an assessment of the input received for the management of the parks system by FCPA.

FISCAL RESPONSIBILITY

STRENGTHS

- Partnership programs provide mutual benefits to county and residents (e.g., mostly no rental fees)
- Efficient operations despite lack of funds
- Strong partnerships
- Creative grant leveraging

WEAKNESSES / BARRIERS

- Money allocated for certain parks/centers has been reallocated to other facilities (e.g., Clemyjontri) and has not been replaced
- Cost of FCPA facilities vs. private facilities (e.g., RECenters vs. local fitness centers) might drive some away
- Lack of transparency with fees

NEEDS / OPPORTUNITIES

- Use volunteers (e.g., for planning; train and certify volunteers for park maintenance); provide training so that projects can be efficiently completed within parks
- Allocate more funds to maintenance
- More funding for maintenance
- Build more partnerships with other organizations (e.g., offer programs that are reimbursable by insurance - such as Silver Sneakers)
- Fees
- Different fees for different uses - launching a kayak costs the same as launching a motor boat
- Consider reduced fees for student use and help schools with transportation to parks
- Cost for horse lesson barn could be partially covered by lesson fees
- Better fee/pricing policy
- Share more information about how fees are spent
- Create endowment for reinvesting in facilities
- Diversify sources of funding (e.g., consider cell towers as a source of revenue)

OPERATIONS/STAFFING

STRENGTHS

- Outreach is effective
- Staff is knowledgeable

WEAKNESSES/BARRIERS

- Response to emails and phone calls is not always timely

NEEDS/OPPORTUNITIES

- Place more staff in parks
- Marketing/outreach
- More senior-focused access to information, on website and otherwise
- Publicize volunteer opportunities
- Outreach about existing programs/facilities, e.g., FitLinxx
- PR/outreach to schools related to nearby parks, programs, and events
- Capitalize on volunteers to addressing staffing needs
- Better use of technology
- Improve customer feedback mechanisms
- Reevaluate staffing/governance structure
- Evaluate outsourced services



PLANNING/LONG-TERM VISION

STRENGTHS

- Has the trust of the public
- Strong consideration of environmental stewardship

WEAKNESSES/BARRIERS

- Large scope: Mandate for services/facilities may be too broad
- Time frame for needs assessment may be too long - too many changes can happen while implementing the recommendations
- Land use and master planning
- May not be sustainable to own 10% of county property

NEEDS/OPPORTUNITIES

- Planning outreach
- Website outreach/input improvements for Needs Assessment and other planning initiatives
- More public input
- Plan for park improvements and maintenance, including replacements and renewal / Reevaluate maintenance program
- Comprehensive plan for using non-county facilities to supplement county facilities
- Remember importance of green space and history when planning
- Need to focus on Urban Parks concept / expand on use of urban parks model
- Incorporate new technology (e.g., GPS, QR codes)
- Consider trails as part of transportation network when planning
- Local (short distance away) parks are easier for residents to use/enjoy - make sure that all have access
- Provide consulting services for how homeowners/HOAs can best use green spaces that they own
- Gather, store, and utilize data more efficiently
- Integrated system of performance metrics
- Incorporate better access/transportation to parks and facilities
- Comprehensive trail plan

APPENDIX F – COMMUNITY SURVEY

OVERVIEW AND METHODOLOGY

ETC Institute conducted a Community Interest and Opinion Survey for the Fairfax County Park Authority during the months of March through June of 2015 to help determine parks and recreation priorities for the community. The survey was developed in unison with the park district to understand issues of importance to Fairfax County and the providence of parks and recreation services to the citizens of Fairfax County. Leisure Vision worked directly with representatives of the Fairfax County Park Authority to develop survey questions regarding important issues to the community. Questions on the survey included a full range of current usage and travel questions, the need and un-met needs for a wide range of passive and active parks and facilities, individual participation in a comprehensive range of recreation, cultural, and sports activities, the priority importance of programs and facilities, support for funding improvements to the system etc. The final survey was 7 pages in length.

The goal was to complete a total of 4,000 surveys within the Park Authority's fourteen (14) Planning Districts. The survey was mailed to a random sample of 35,000 households in Fairfax County. An option to complete the survey online and in Spanish was also available to residents who had that preference. A total of 4,665 households completed the survey, including 435 by online and 4225 by mail which far exceeded the goal of 4,000. The results for the sample of 4,665 households have a 95% level of confidence with a precision rate of at least +/- 1.4%. Surveys completed from each Planning District are shown below.

Planning District	Completed Surveys
Baileys	136
Mclean	407
Annandale	388
Mt. Vernon	385
Fairfax	284
Bull Run	451
Springfield	224
Jefferson	205
Lincolnia	67
Rose Hill	239
Pohick	802
Lower Potomac	144
Upper Potomac	540
Vienna	374
Other	14
Total	4665

Weighting: Weighting is frequently used technique in order to ensure the profile data collected through the survey is representative of the population. When looking at the age distribution in Fairfax County, results looked to be skewed slightly toward older adults creating an over representation of the 55 and older segment of the population. Leisure Vision/ETC Institute applied weighting techniques in order to create a more evenly distributed data set. By comparing ages of survey respondents to the target population, Leisure Vision/ETC Institute was able to balance out the data and achieved results that are aligned with population characteristics.



MAJOR FINDINGS

VISITATION OF PARKS AND RECREATION FACILITIES

- **Park Usage:** Based on the percentage of respondents, 87% indicated they had visited a park operated by the Fairfax County Park Authority over the past 12 months and 13% indicated they had not.
- **Quality of Parks and Recreation Facilities:** Based on the percentage of respondents who have visited parks operated by the Fairfax County Park Authority, 62% rated the physical condition of all parks, trails and recreation facilities as “good”. Other ratings of the parks, trails and recreation facilities are: excellent (29%), fair (9%) and less than 1% indicated poor.

PARK AUTHORITY IMPROVEMENTS

- **Agreement with Suggested Improvements:** Based on the respondent households’ level of agreement, ninety-four percent (94%) indicated they either “strongly agree” or “agree” it is important to *preserve open space and environment*. Other statements with similar levels of agreement are: provide opportunities to improve physical health and fitness (91%), make Fairfax County a more desirable place to live (90%), and provide recreational facilities/programs for children and teens (90%).
- **Most Important for Fairfax County to do for Households:** Based on the percentage of respondents’ top three most important statements, 57% indicated that *preserve open space and environment* is most important to their household. Other most important statements include: improve physical health and fitness (54%), provide recreational facilities/ programs for children and teens (35%), and make Fairfax County a more desirable place to live (33%).
- **Most Important to the Future of Fairfax County:** Based on the percentage of respondents’ top three most important statements, 60% indicated that *preserve open space and environment* is most important to the future of Fairfax County. Other most important statements include: make Fairfax County a more desirable place to live (48%), improve physical health and fitness (35%), and provide recreational facilities/programs for children and teens (27%).

PARKS AND FACILITIES

- **Park and Facility Types Households Have a Need For:** Based on the percentage of respondents, 84% or 329,750 households indicated that they have a need for *paved walking and biking trails*. Other parks and facilities respondents have a need for include: large regional parks (78% or 306,252 households), small community parks (65% or 292,545 households), unpaved walking and biking trails (65% or 253,383 households), and historic sites and museums (64% or 251,425 households).

- **How Well Needs are Being Met by Parks and Facilities:** Eighty-eight percent (88%) of respondents indicated *large regional parks* either “fully met” or “mostly met” their needs. Other parks and facilities with similar levels of needs met include: historic sites and museums (78%), and small community parks (77%).
- **Most Important Parks and Facilities:** Based on the percentage of respondents top four most important parks and facilities, 54% indicated that *paved walking and biking trails* is most important to their household. Other most important statements include: large regional parks (46%), small community parks (44%), and unpaved walking and biking trails (33%).

OUTDOOR AND INDOOR FACILITIES

- **Outdoor and Indoor Facilities Households Have a Need For:** Based on the percentage of respondents, 67% or 262,390 households indicated that they have a need for *swimming pools*. Other outdoor and indoor facilities respondents have a need for include: exercise and fitness facilities (63% or 248,292 households), gyms (50% or 193,855 households), water parks and spraygrounds (44% or 173,491 households), and tennis courts (38% or 146,860 households).
- **How Well Needs are Being Met by Outdoor and Indoor Facilities:** Seventy-seven percent (77%) of respondents indicated *baseball fields (60ft bases)* either “fully met” or “mostly met” their needs. Other outdoor and indoor facilities with similar levels of needs met include: baseball fields (90ft bases) (74%), and swimming pools (72%).
- **Most Important Indoor and Outdoor Facilities:** Based on the percentage of respondents’ top four most important statements, 52% indicated that *swimming pools* are most important to their household. Other most important statements include: exercise and fitness facilities (45%), gyms (31%), water parks and spraygrounds (28%), and soccer/football/lacrosse/field hockey/rugby fields (28%).

PROGRAMS AND ACTIVITIES

- **Programs and Activities Households Have a Need For:** Based on the percentage of respondents, 77% or 301,553 households indicated that they have a need for *biking, hiking walking*. Other programs and activities respondents have a need for include: exercise/fitness (61% or 236,934 households), special events, concerts (58% or 225,969 households), boating, fishing, camping (42% or 162,917 households), and nature/environmental programs (39% or 151,560 households).
- **How Well Needs are Being Met by Programs and Activities:** Eighty-one percent (81%) of respondents indicated *biking, hiking, walking* either “fully met” or “mostly met” their needs. Other programs and activities with similar levels of needs met include: exercise/fitness (69%), birthday parties (64%), and learn to swim lessons (63%).



- **Usage of Programs and Activities:** Eighty-seven percent (87%) of respondents have indicated they have used *biking, hiking, walking* during the past 12 months. Other programs and activities that respondents used during the past 12 months: exercise/fitness (64%), and special events and concerts (59%).

BY AGE GROUP

- **Under age 18:** Based on the percentage of respondent households with children under age 18 top two choices, 26% indicated *learn to swim lessons* as the most important to their household. Other programs and activities with similar levels of importance to households include: summer day camps (17%), and biking, hiking, walking (14%).
- **Ages 18 to 49:** Based on the percentage of respondent households with members ages 18 to 49 top two choices, 38% indicated *biking, hiking, walking* as the most important to their household. Other programs and activities with similar levels of include: exercise/fitness (24%), special events, concerts (15%), boating, fishing, camping (13%), and programs for families (10%).
- **Ages 50 and older:** Based on the percentage of respondent households with members ages 50 and older top two choices, 34% indicated *biking, hiking, walking* as the two most important to their household. Other programs and activities with similar levels of importance include: exercise/fitness (22%), boating, fishing, and camping (9%), and special events, concerts (9%).

SUPPORT AND FUNDING FOR PARKS AND RECREATION SYSTEM

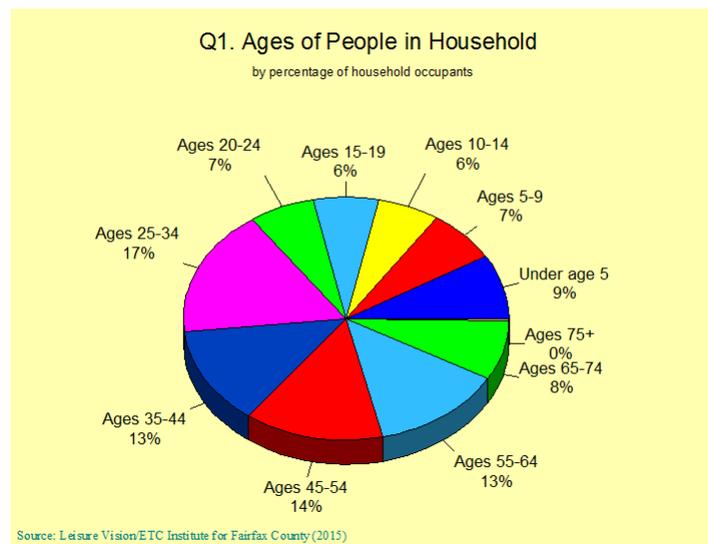
- Based on the percentage of respondent households who indicated their level of support as either “very supportive” or “somewhat supportive,” 87% indicated that they support the county to *expand/renovate walking biking trails and connect existing trails*. Other improvements with similar levels of support include: restore/maintain natural areas (86%), upgrade/renovate existing park buildings and facilities (86%), and purchase land for passive recreational uses (82%).
- **Willingness to Fund with County Tax Dollars:** Based on the sum of respondents top four most willing actions, 45% indicated they would be willing to *expand/renovate walking/biking trails and connect existing trails* with county tax dollars. Other actions households are most willing to fund with tax dollars include: purchase land to preserve open space and natural areas (40%), upgrade/renovate existing park buildings and facilities (31%), restore/maintain natural areas (31%), and purchase land for passive recreational uses (28%).

- **Allocation of Funds:** Residents were given the opportunity to allocate \$100 to various categories. Based on the overall percentage of respondents, households would spend the most money \$30 to repair/maintain existing parks and infrastructure. Other allocations of funds were: upgrade/expand existing park facilities (\$22), repair/maintain existing parks and infrastructure (\$18), conserve and maintain natural and historic resources (\$18), acquire new parkland and open space (\$17), and develop new recreation and parks facilities (\$12).

RATING AND IMPORTANCE OF PARK SYSTEM

- **Satisfaction with Park System:** Based on the percentage of respondents, 57% rated their level of satisfaction with the park system as an 8 or higher on a 10 point scale. Other ratings include: 4-7 (34%), and 1-3 (9%).
- **Importance of High Quality Parks to Quality of Life:** Based on the percentage of respondents 62% indicated high quality parks, trails, recreation facilities and services are *extremely important* to the quality of life in Fairfax County. Other ratings of importance are: very important (31%), somewhat important (6%), and not at all important (1%).

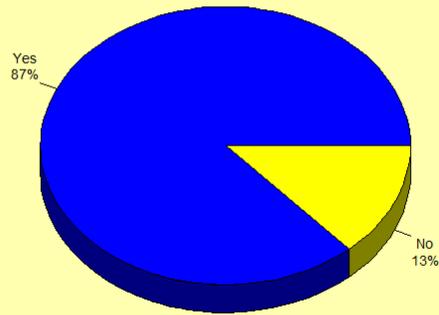
CHARTS AND GRAPHS





Q2. Households That Have Visited Parks Operated by the Fairfax County Park Authority in the Past 12 Months

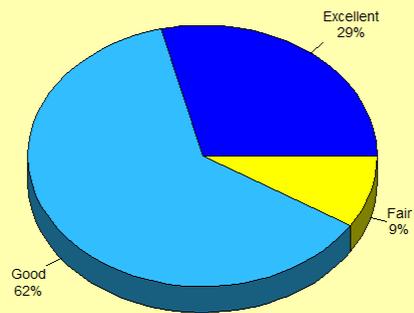
by percentage of respondents



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q3. How Residents Rate the Physical Condition of ALL the Fairfax County Park Authority Parks, Trails & Recreation Facilities they Have Visited

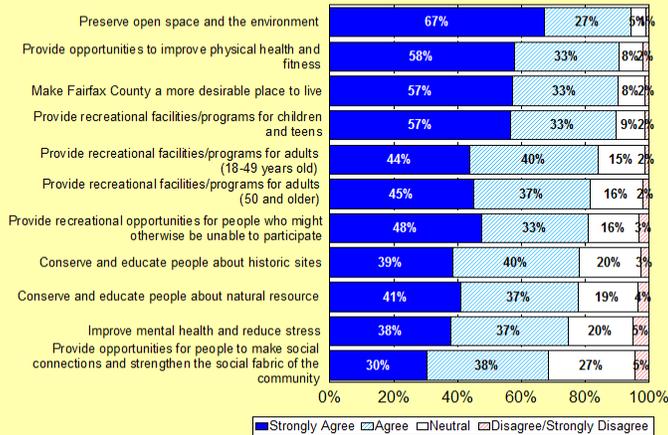
by percentage of respondents (excluding "don't know")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q4. Resident Agreement with the Park Authority to:

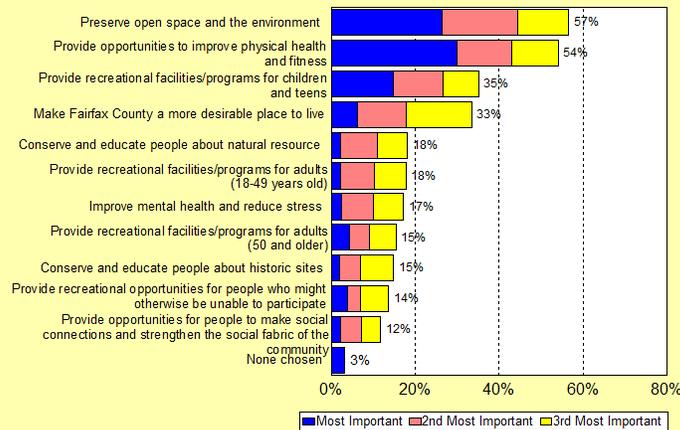
by percentage of respondents



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q5. Most Important for Fairfax County Park Authority to do for You and Your Household

by percentage of respondents who selected the item as one of their top four choices

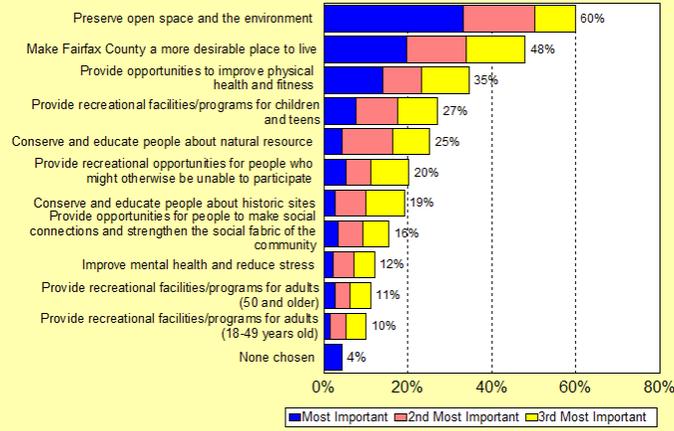


Source: Leisure Vision/ETC Institute for Fairfax County (2015)



Q6. Most Important for Fairfax County Park Authority to do for the Future of Fairfax County

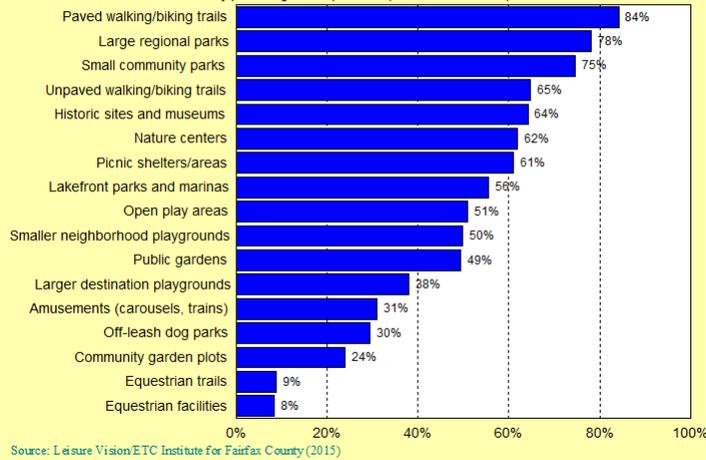
by percentage of respondents who selected the item as one of their top four choices



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q7. Households that Have a Need for Park, Play Areas, Gardens, Trails, Equestrian, Nature or Historic Park or Facility

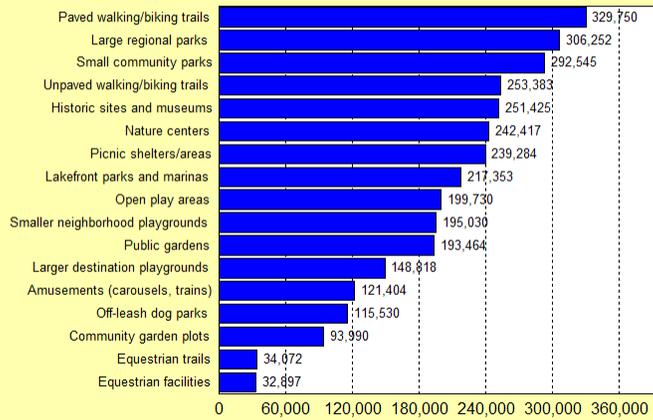
by percentage of respondents (without "don't know")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q7a. Households that Have a Need for Park, Play Areas, Gardens, Trails, Equestrian, Nature or Historic Park or Facility

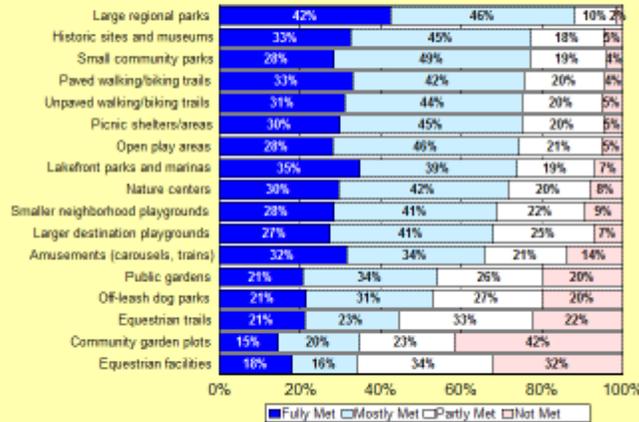
by number of households based on 391,627 households in Fairfax County



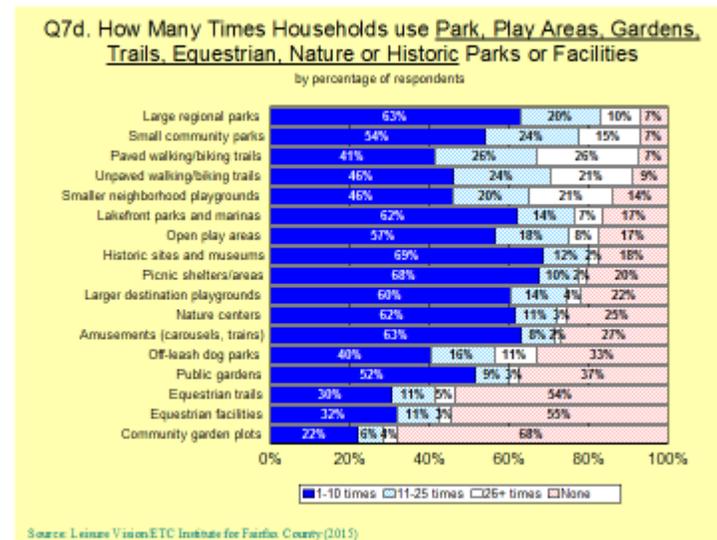
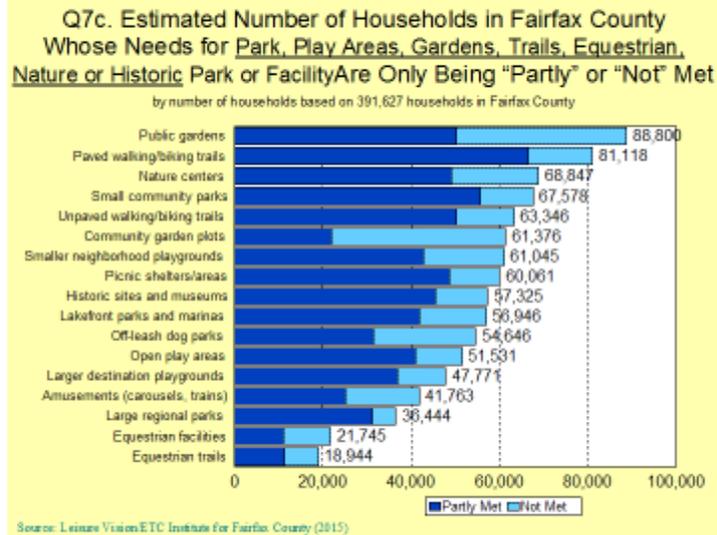
Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q7b. How Well Household Needs are Being Met by Park, Play Areas, Gardens, Trails, Equestrian, Nature or Historic Park or Facility

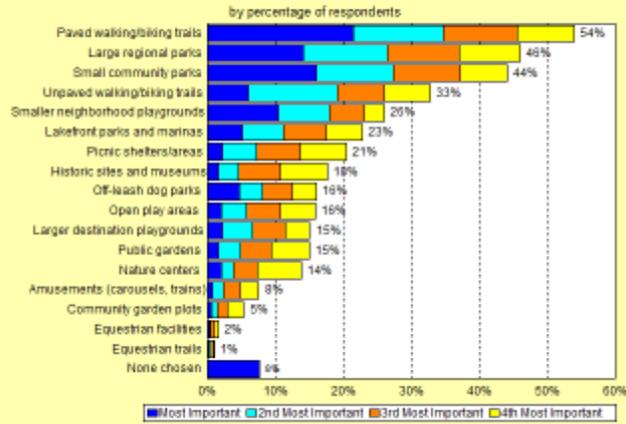
by percentage of respondents (without "don't know")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

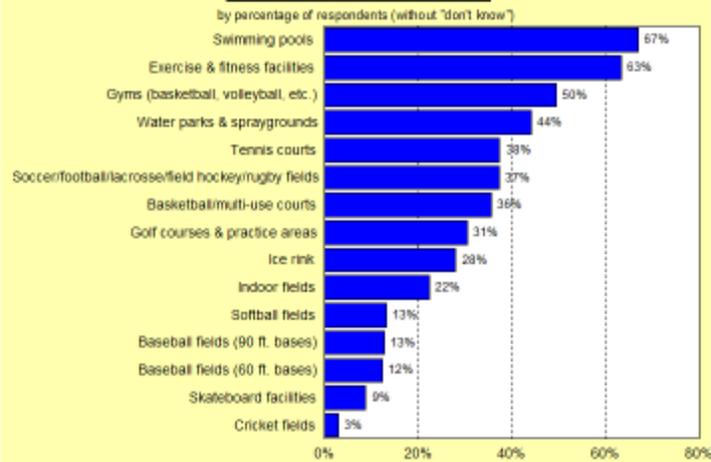


Q8. Park, Play Areas, Gardens, Trails, Equestrian, Nature or Historic Parks or Facilities that are MOST IMPORTANT to Households



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

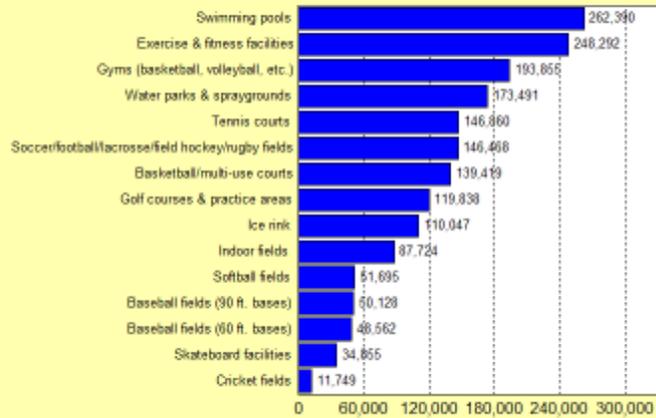
Q9. Households that Have a Need for Outdoor or Indoor Facilities





Q9a. Households that Have a Need for Outdoor or Indoor Facilities

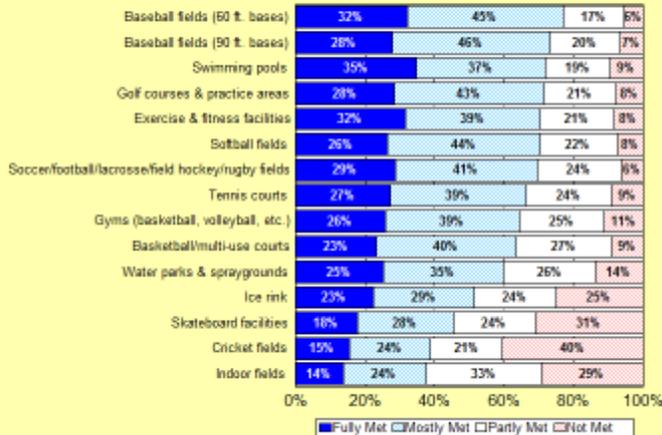
by number of households based on 391,627 households in Fairfax County



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q9b. How Well Household Needs are Being Met by Outdoor or Indoor Facilities

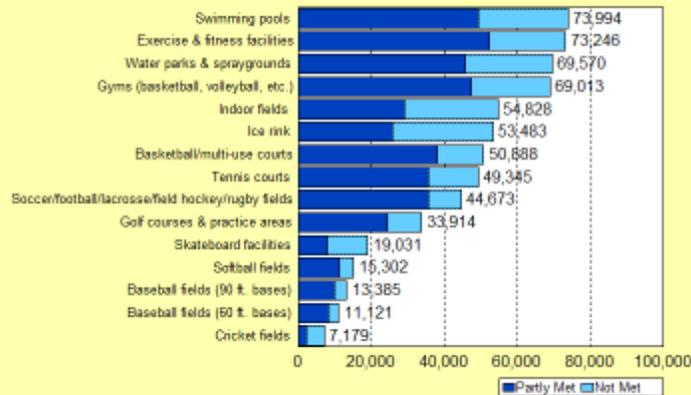
by percentage of respondents (without "don't know")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q9c. Estimated Number of Households in Fairfax County Whose Needs for Outdoor or Indoor Facilities Are Only Being "Partly" or "Not" Met

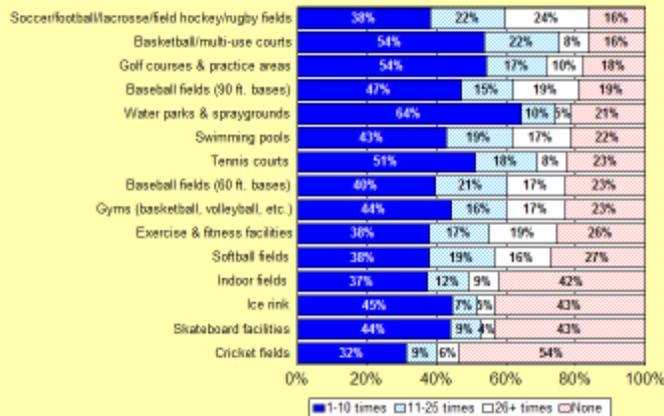
by number of households based on 391,627 households in Fairfax County



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q9d. How Many Times Households Use Outdoor or Indoor Facilities

by percentage of respondents (without "don't know")

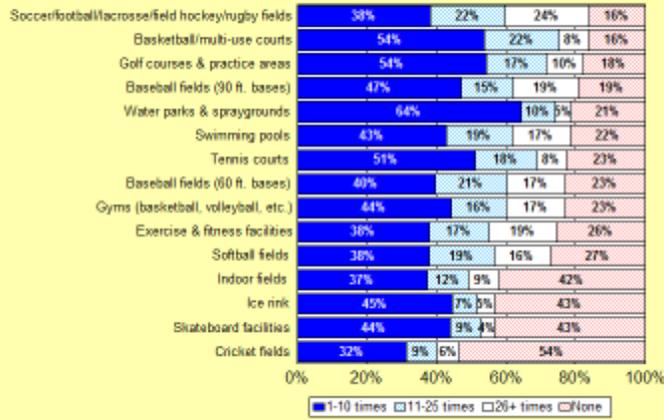


Source: Leisure Vision/ETC Institute for Fairfax County (2015)



Q9d. How Many Times Households Use Outdoor or Indoor Facilities

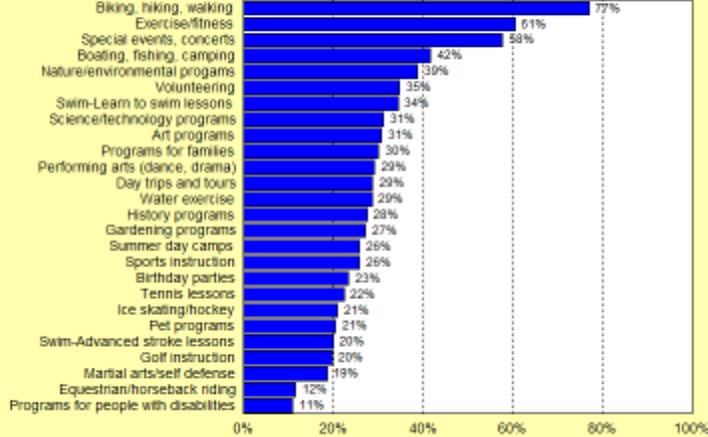
by percentage of respondents (without "don't know")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q11. Households that Have a Need for Various Programs or Activities

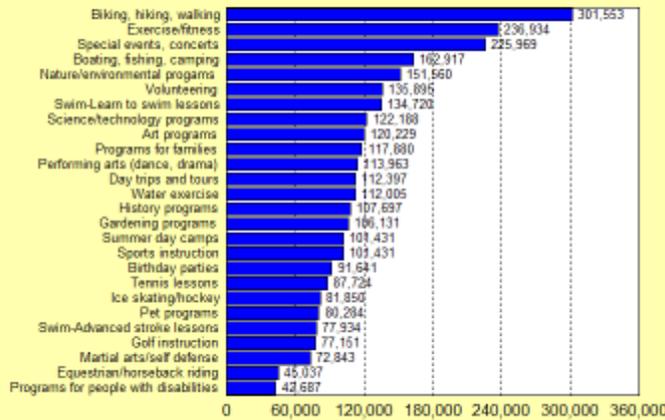
by percentage of respondents (without "don't know")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q11a. Households that Have a Need for Programs and Activities

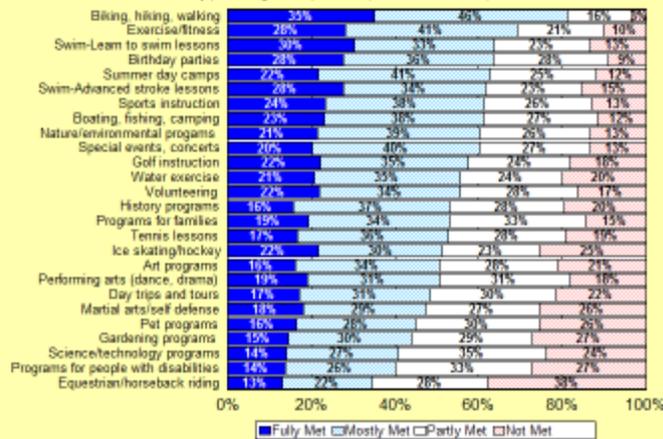
by number of households based on 391,627 households in Fairfax County



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q11b. How Well Household Needs are Being Met by Various Programs or Activities

by percentage of respondents (without "don't know")

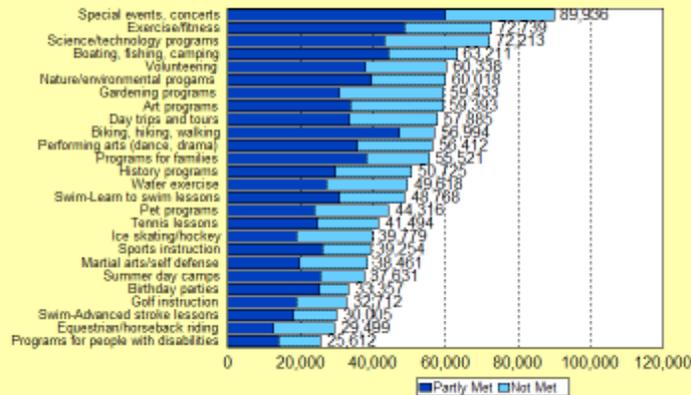


Source: Leisure Vision/ETC Institute for Fairfax County (2015)



Q11c. Estimated Number of Households in Fairfax County Whose Needs for Programs or Activities Are Only Being "Partly" or "Not" Met

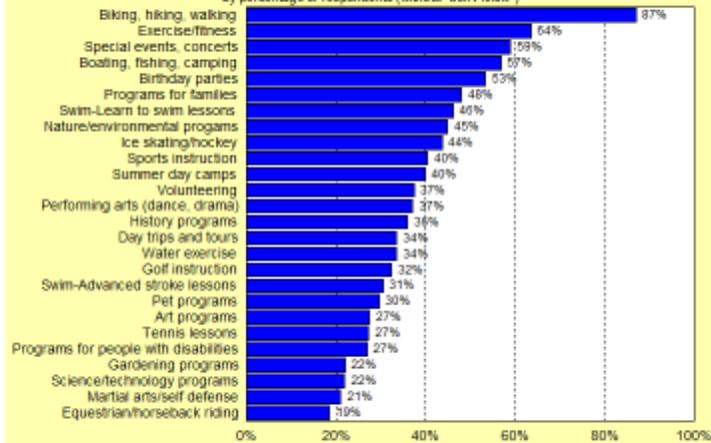
by number of households based on 391,627 households in Fairfax County



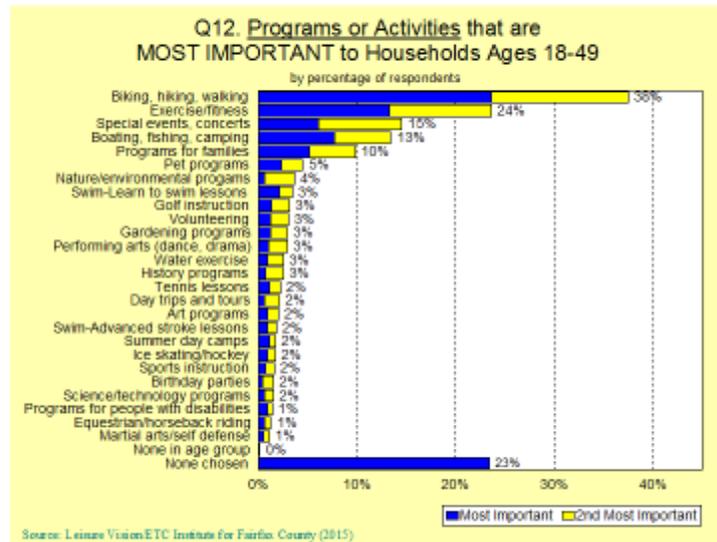
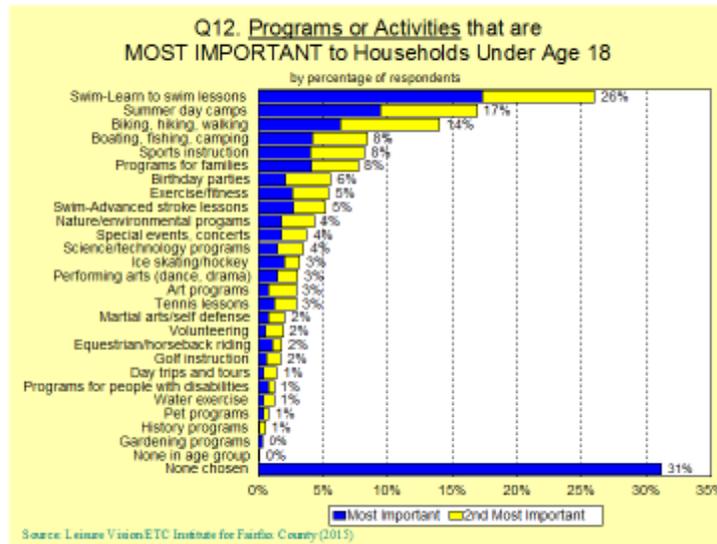
Source: Leisure Vision/ETC Institute for Fairfax County (2015)

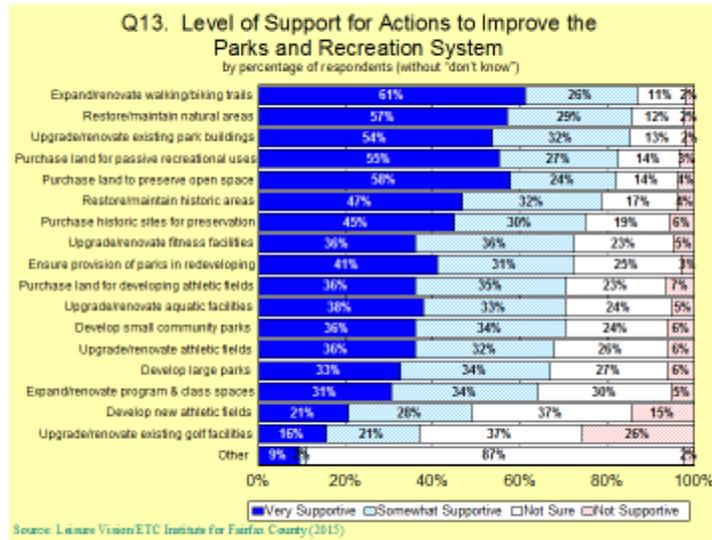
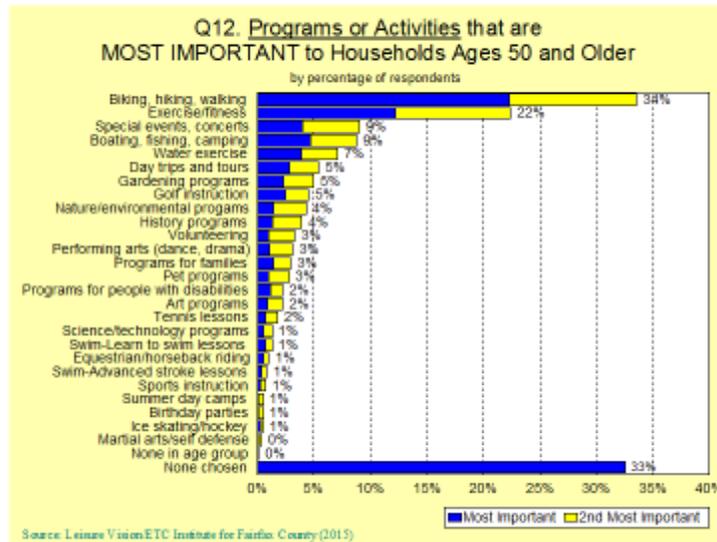
Q11d. Whether or Not Households Have Used Various Programs or Activities

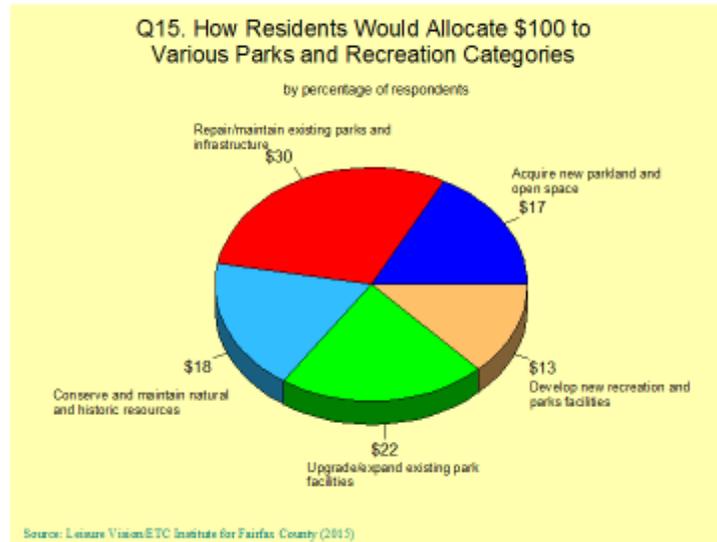
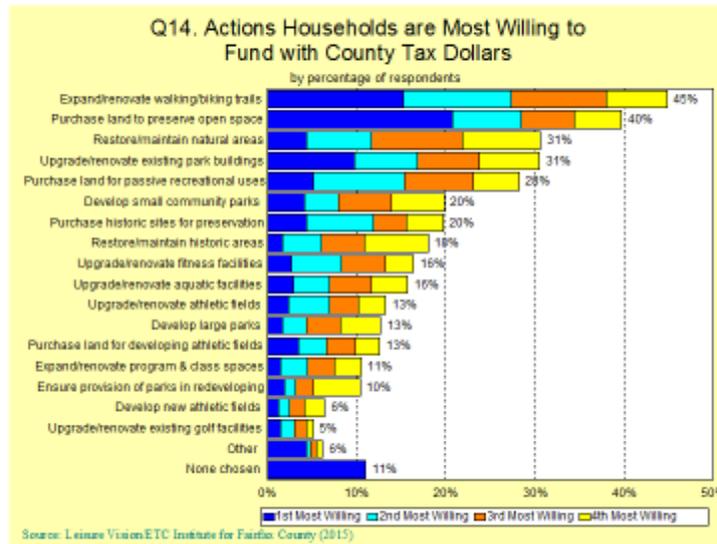
by percentage of respondents (without "don't know")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)



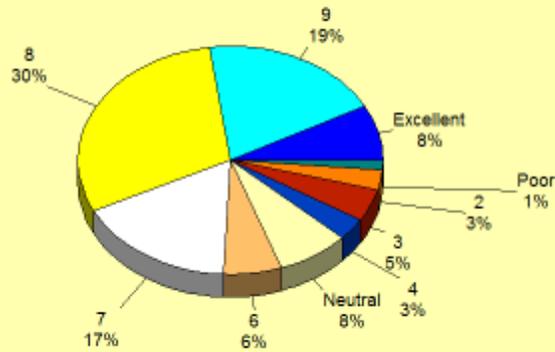






Q16. Rating of Satisfaction with the Fairfax County Park System on Scale of 10 to 1

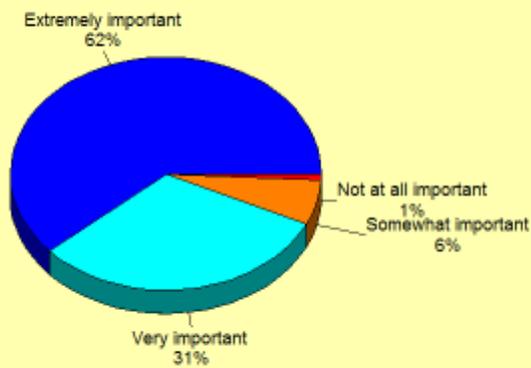
by percentage of respondents (excluding "don't know")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q17. Importance of High Quality Park, Trails, Recreation Facilities and Services to the Quality of Life in Fairfax County

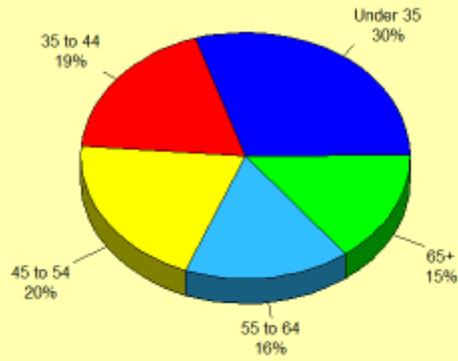
by percentage of respondents (excluding "don't know")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q18. Demographics: Ages of Respondents

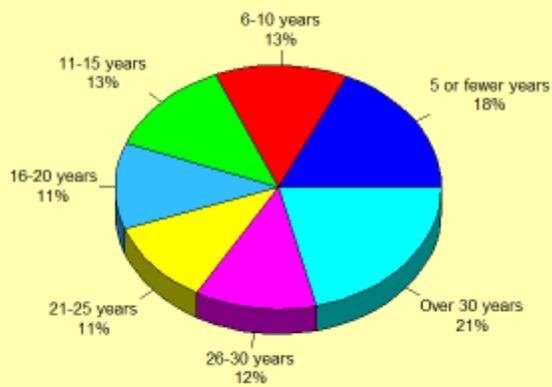
by percentage of respondents (excluding not provided)



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q19. Demographics: Years Lived in Fairfax County

by percentage of respondents (excluding don't know)

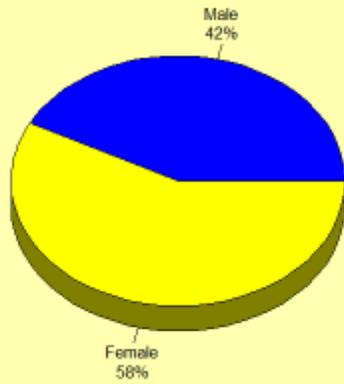


Source: Leisure Vision/ETC Institute for Fairfax County (2015)



Q20. Demographics: Gender

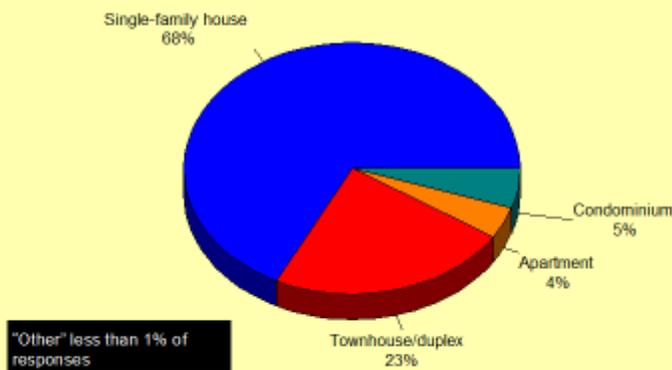
by percentage of respondents (excluding "not provided")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q21. Demographics: Best Description of Resident Home

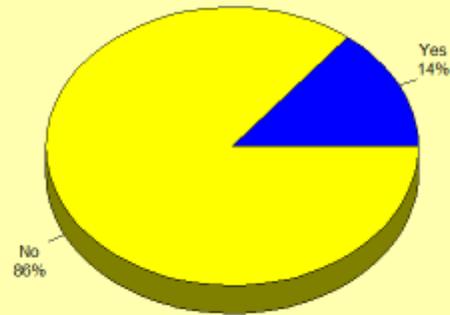
by percentage of respondents (excluding not provided)



Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q22. Demographics: Hispanic or Latino Ancestry

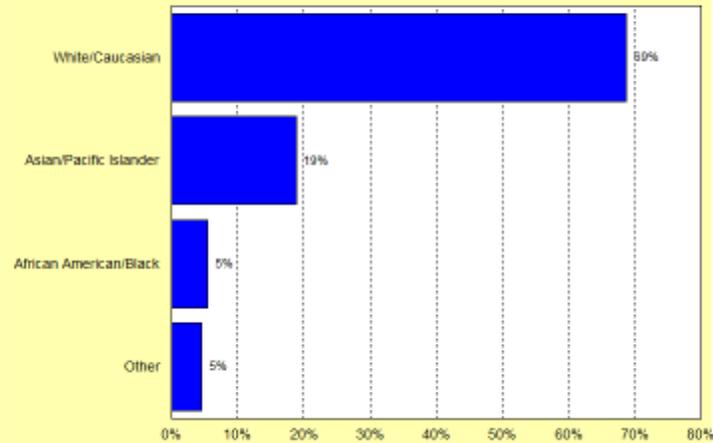
by percentage of respondents (excluding not provided)



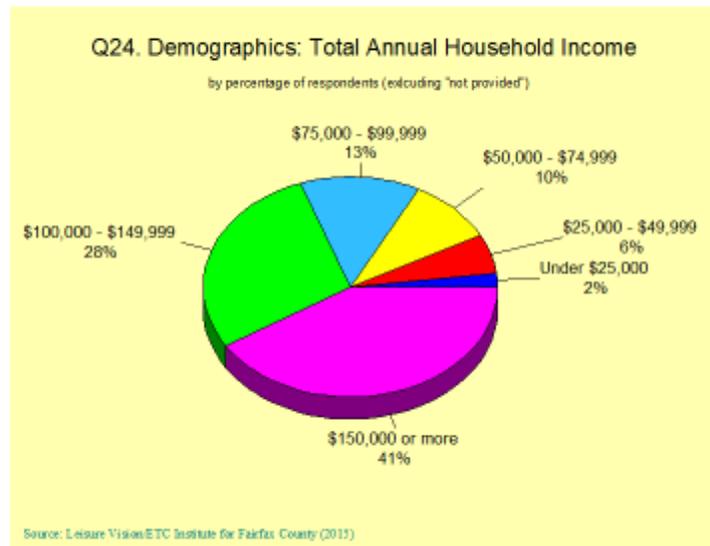
Source: Leisure Vision/ETC Institute for Fairfax County (2015)

Q23. Demographics: Race/Ethnicity

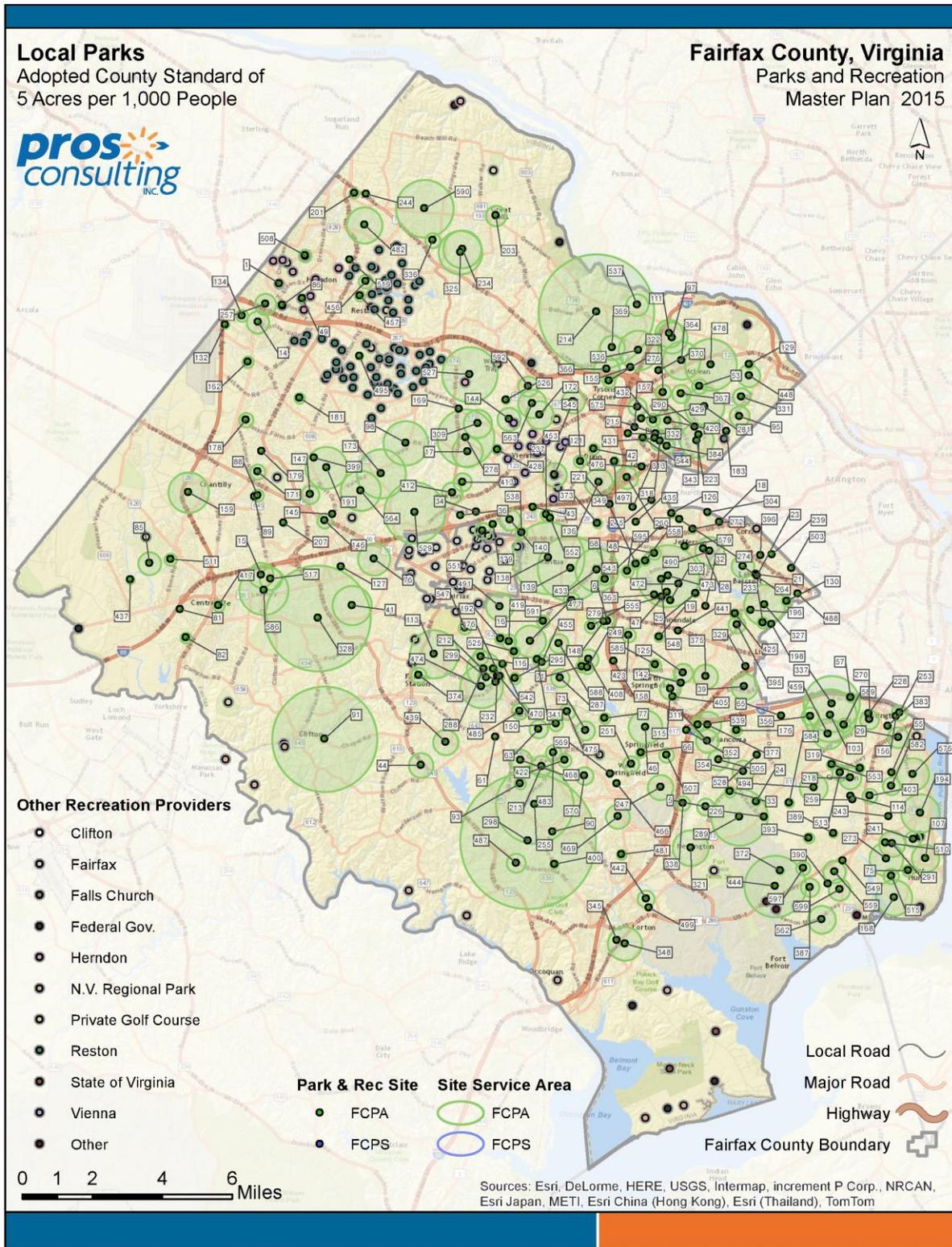
by percentage of respondents (excluding "not provided")



Source: Leisure Vision/ETC Institute for Fairfax County (2015)



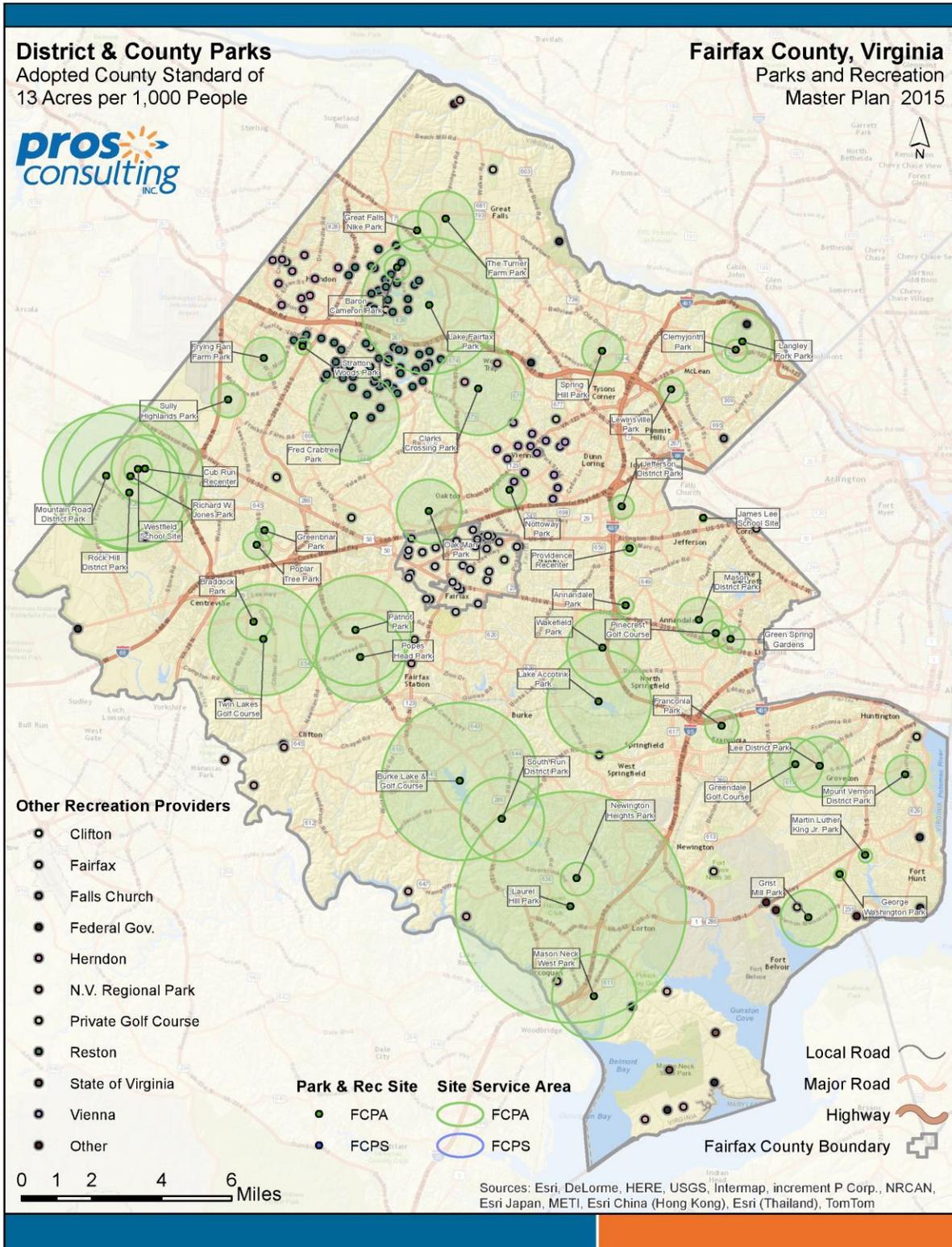
APPENDIX G - MAPPING

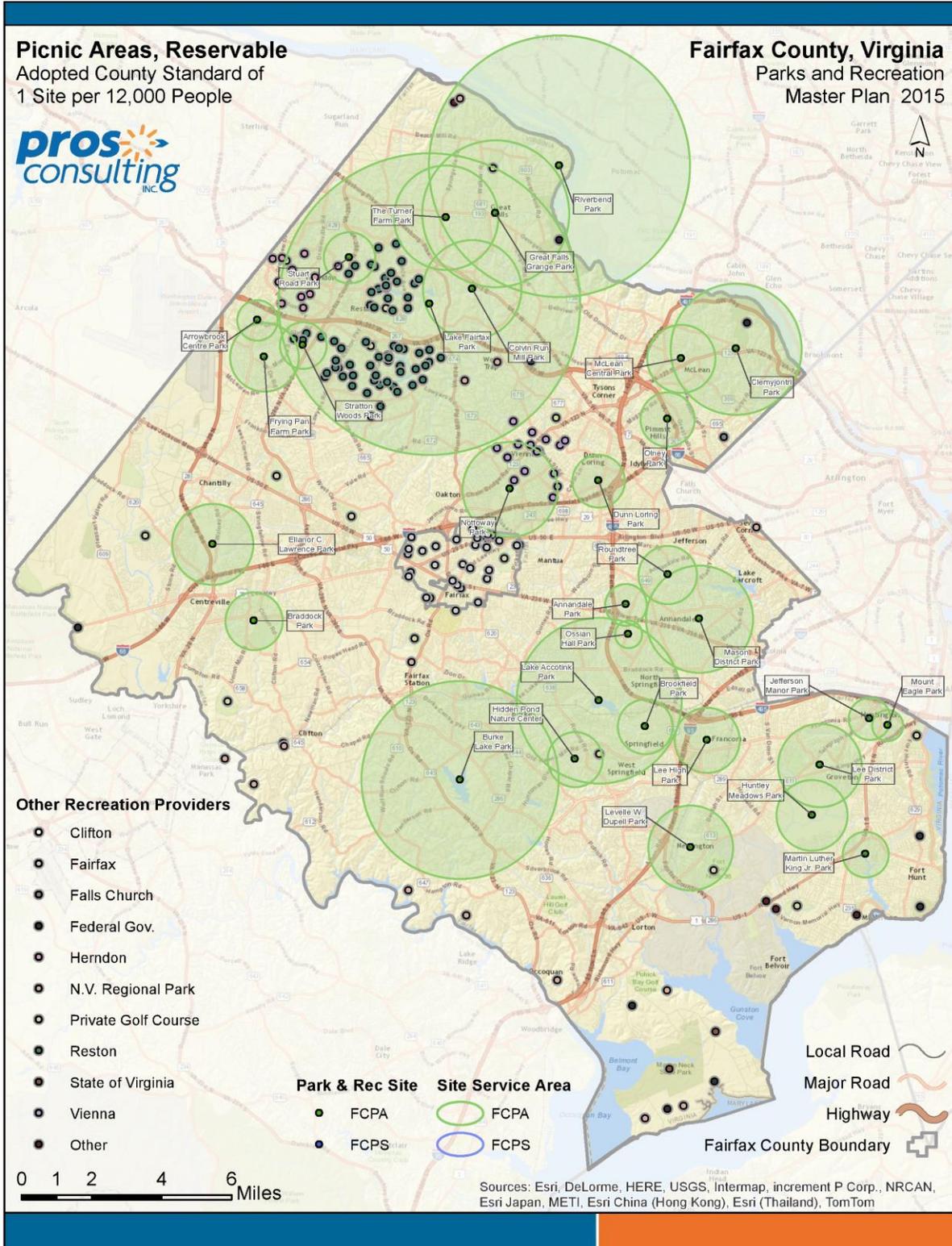




District & County Parks
 Adopted County Standard of
 13 Acres per 1,000 People

Fairfax County, Virginia
 Parks and Recreation
 Master Plan 2015

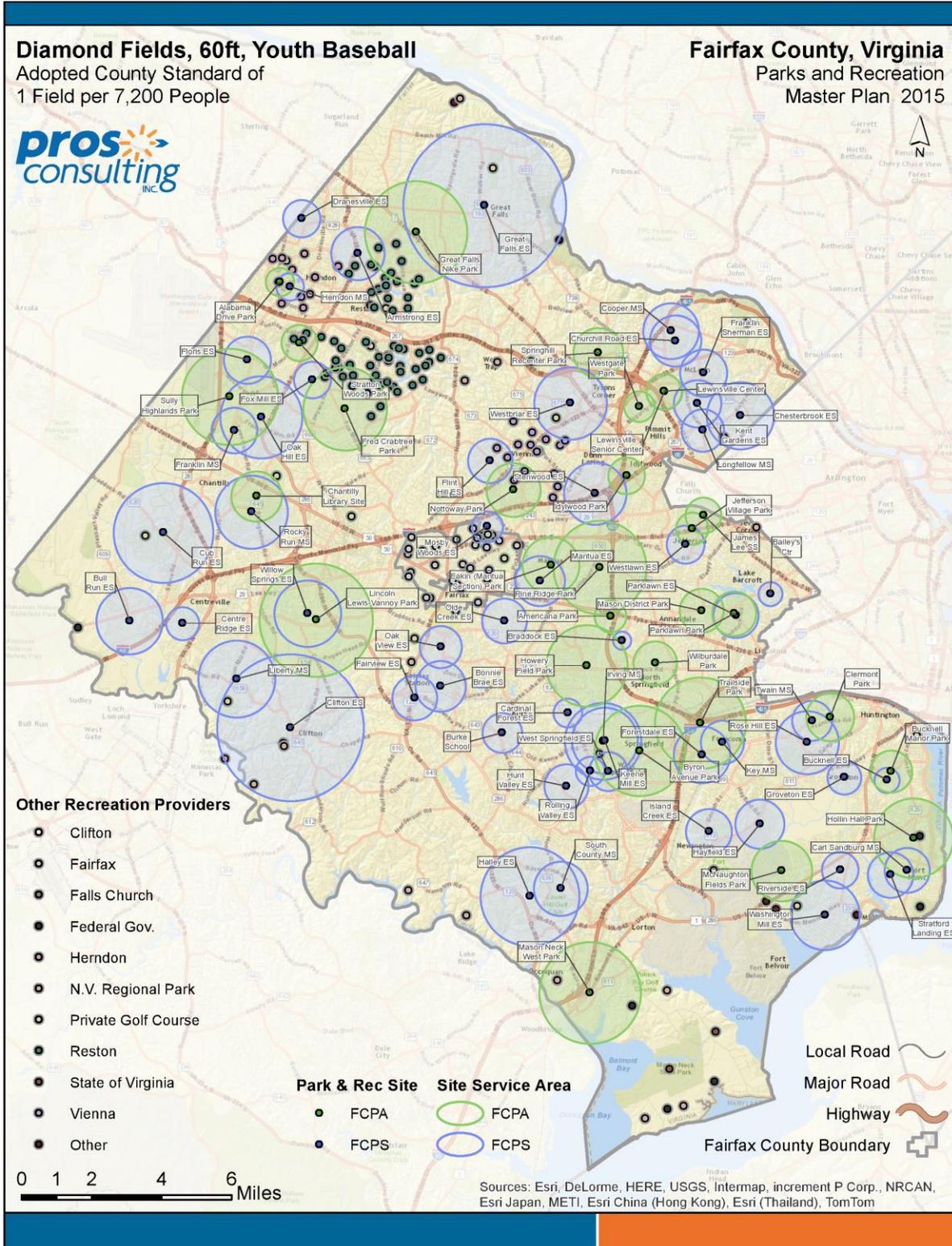




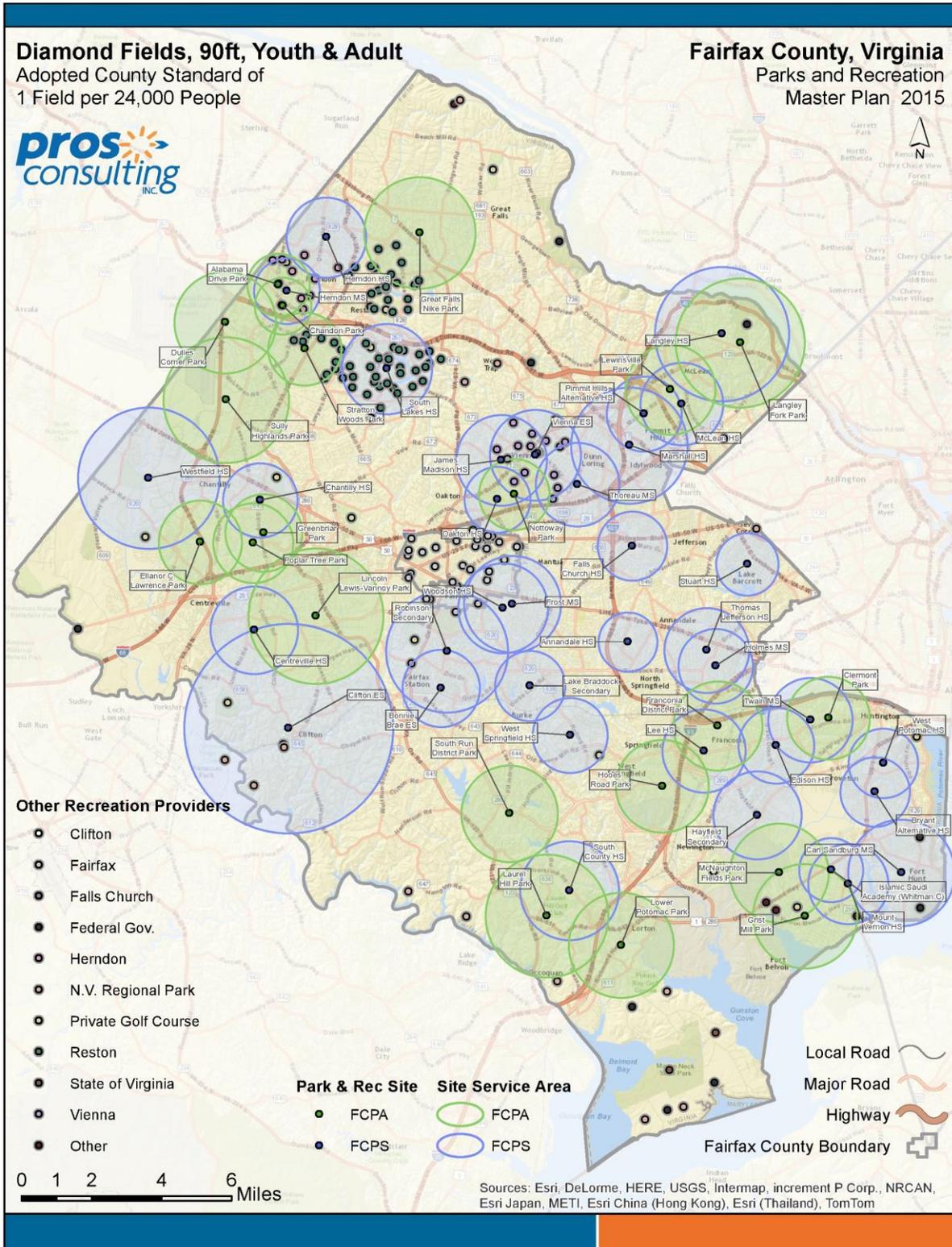


Diamond Fields, 60ft, Youth Baseball
 Adopted County Standard of
 1 Field per 7,200 People

Fairfax County, Virginia
 Parks and Recreation
 Master Plan 2015



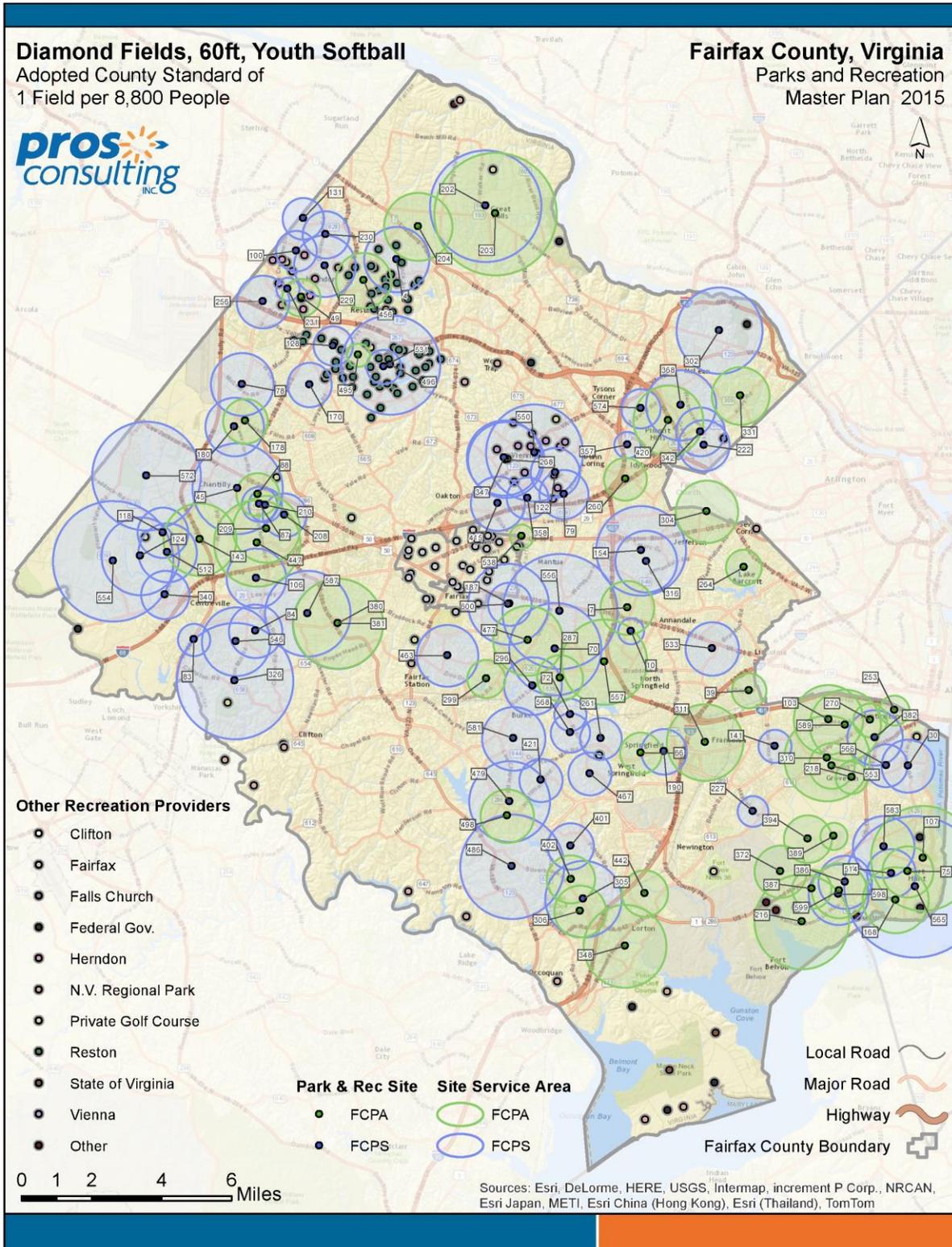
Sources: Esri, DeLorme, HERE, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom

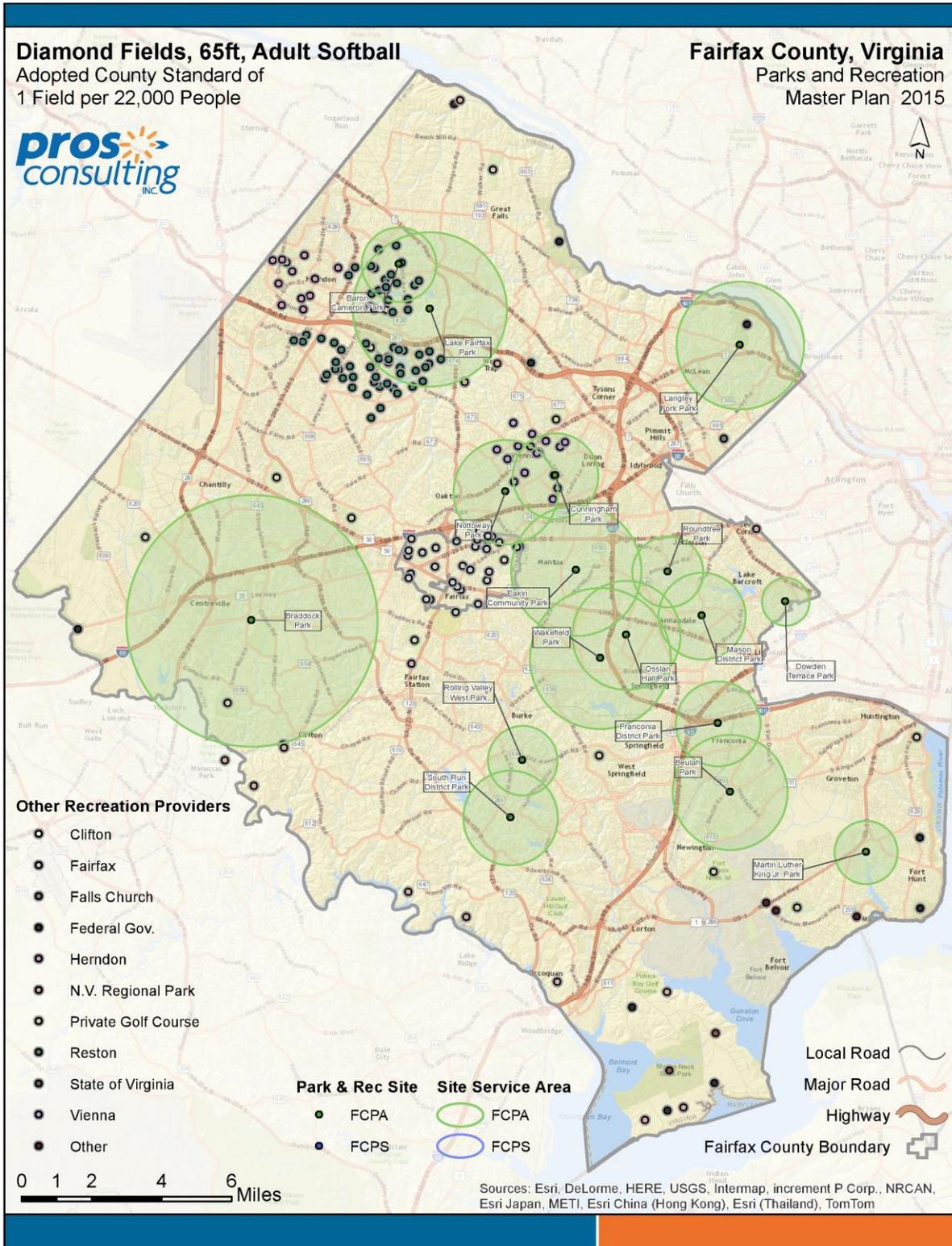


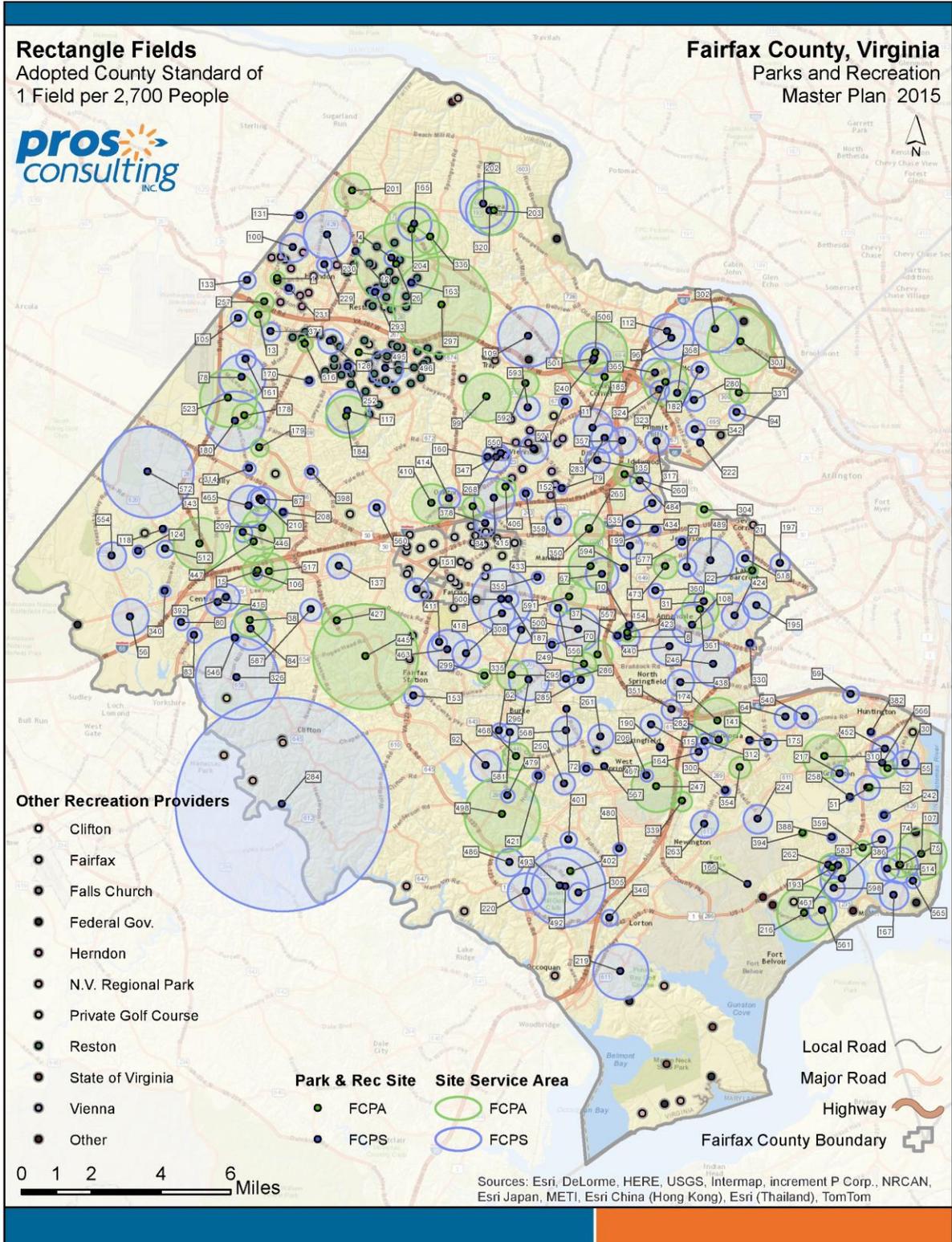


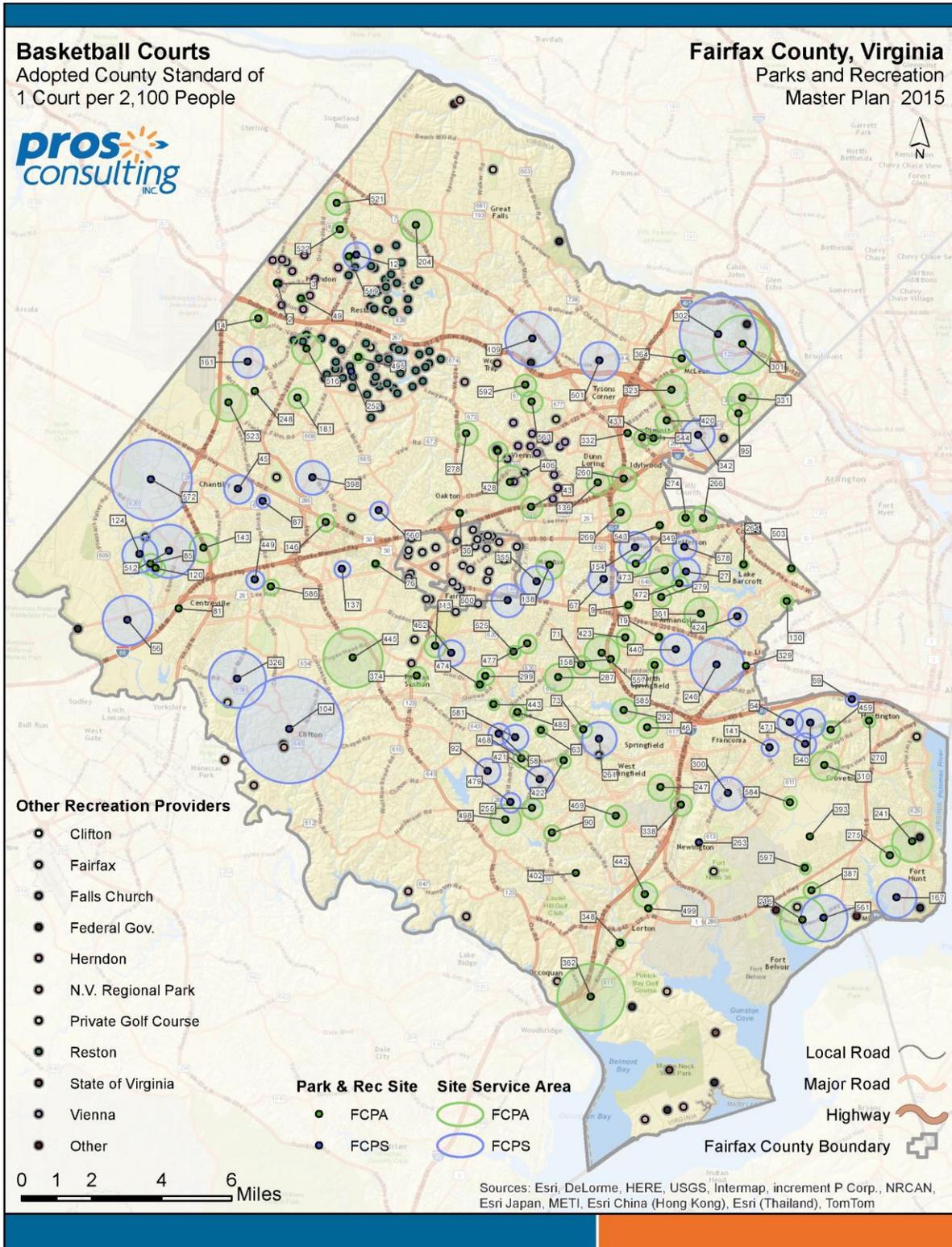
Diamond Fields, 60ft, Youth Softball
 Adopted County Standard of
 1 Field per 8,800 People

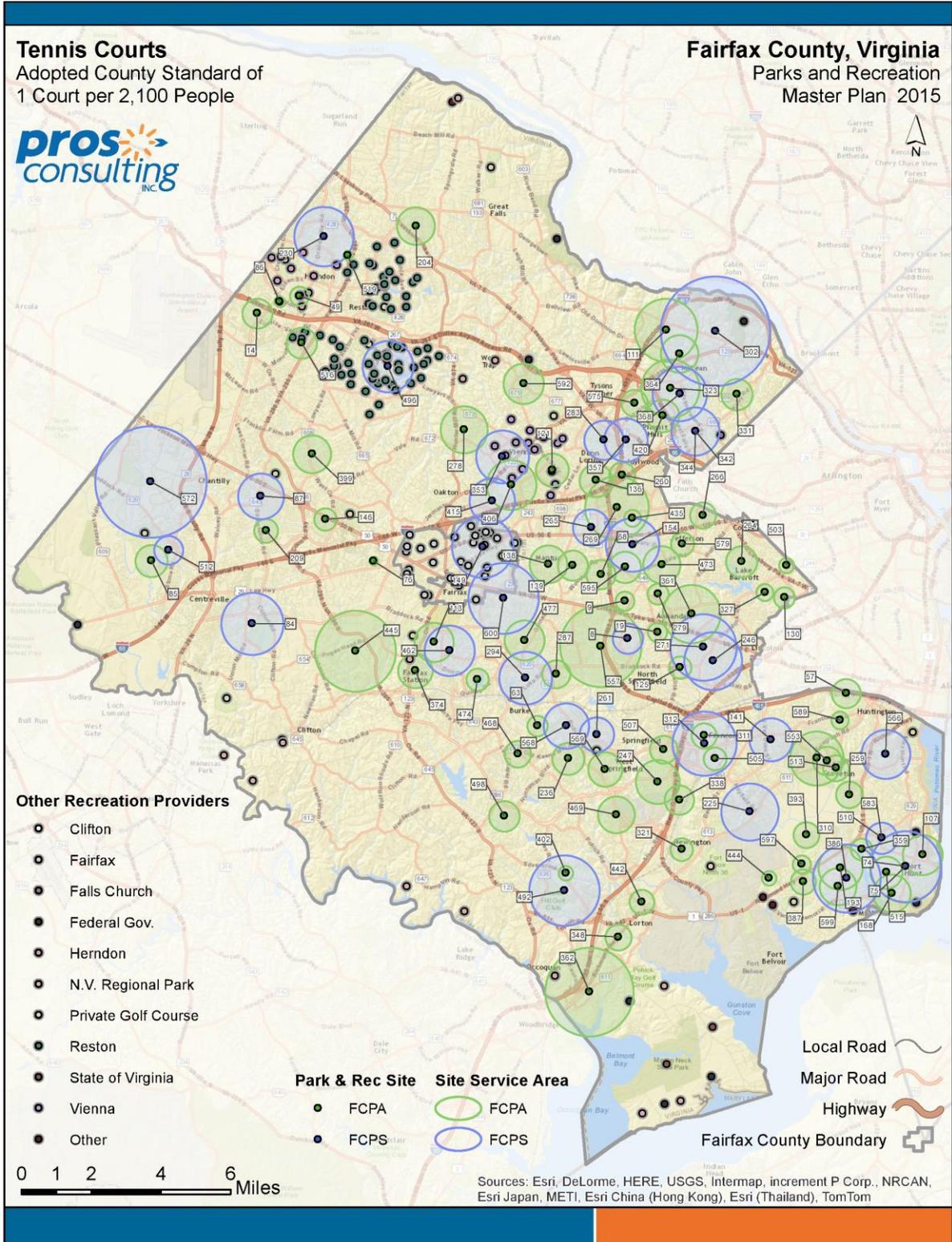
Fairfax County, Virginia
 Parks and Recreation
 Master Plan 2015

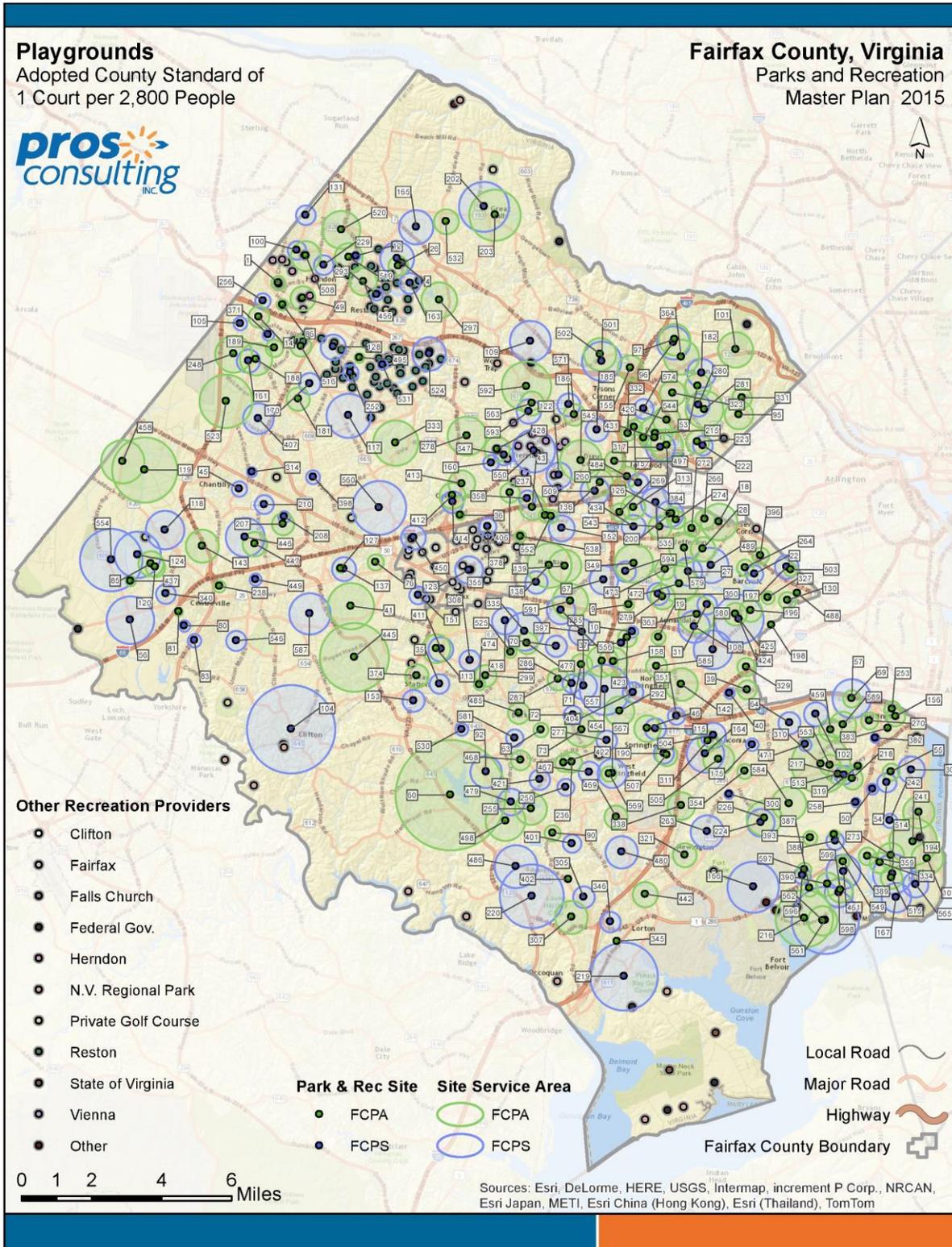














Fairfax County Park Authority

Number Key for Equity Maps

Map #	Site Name	Map #	Site Name	Map #	Site Name	Map #	Site Name	Map #	Site Name
1	Alabama Drive Park	121	Cunningham Park	241	Hollin Hill Park	361	Mason District Park	481	Saratoga Park
2	Alabama Drive Park #1	122	Cunningham Park ES	242	Hollin Meadows ES	362	Mason Neck West Park	482	Shaker Woods Park
3	Alabama Drive Park #2	123	Daniels Run ES	243	Hollin Meadows Park	363	Masonville Park	483	Shannon Station Park
4	Alcain ES	124	Deer Park ES	244	Holly Knoll Park	364	McLean Central Park	484	Shrewwood ES
5	Amberleigh Park	125	Deerlick Park	245	Hollywood Road Park	365	McLean Government Center	485	Silas Burke Park
6	Americana Park	126	Devonshire Park	246	Holmes MS	366	McLean Hamlet Park	486	Silverbrook Park
7	Anandale Community Park	127	Dixie Hill Park	247	Hooes Road Park	367	McLean High Park	487	Silverbrook Park
8	Anandale HS	128	Dogwood ES	248	Horsepen Run Stream Valley Park	368	McLean HS	488	Skylake Park
9	Anandale Park	129	Dolley Madison Estates Park	249	Howery Field Park	369	McLean Hunt Estates Park	489	Sleepy Hollow ES
10	Anandale Terrace ES	130	Dowden Terrace Park	250	Hunt Valley ES	370	McLean Knolls Park	490	Sleepy Hollow Park
11	Arbor Row (Jones Branch Park)	131	Dransville ES	251	Hunner Village Park	371	McNair ES	491	Smokewood Park
12	Armstrong ES	132	Dulles Corner Park	252	Hunters Woods ES	372	McNaughton Fields Park	492	South County HS
13	Arrowbrock Centre Park	133	Dulles Greens	253	Huntington Park	373	Memfield Park	493	South County MS
14	Arrowbrock Park	134	Dulles Rock Hill Park	254	Huntley Meadows Park	374	Middleidge Park	494	South Kings Forest Park
15	Arrowhead Park	135	Dunn Loring Ctr	255	Hutchman Park	375	Monch Farm Park	495	South Lakes Drive Park
16	Ashford East Park	136	Dunn Loring Park	256	Hutchison ES	376	Monticello Park	496	South Lakes HS
17	Ashlawn Park	137	Eagle View ES	257	Hutchinson School Site	377	Monticello Woods Park	497	South Railroad Street Park
18	Azalea Park	138	Eakon (Mantua Section) Park	258	Hybla Valley ES	378	Mosby Woods ES	498	South Run District Park
19	Backlick Park	139	Eakon Community Park	259	Hybla Valley Park	379	Mosby Woods Park	499	Sourthgate Park
20	Bailey's Cr	140	East Blake Lane Park	260	Itcywood Park	380	Mott Community Center Park	500	Sprague (Chapel Square) Center
21	Bailey's Elementary School Site	141	Edson HS	261	Inving MS	381	Mott Community Cr	501	Spring Hill ES
22	Bailey's ES	142	Esdall Park	262	Islamic Saudi Academy (Whitman C)	382	Mount Eagle ES	502	Spring Hill Park
23	Bailey's Park	143	Ellanor C. Lawrence Park	263	Island Creek ES	383	Mount Eagle Park	503	Spring Lane Park
24	Banks, Sr. Olander & Margaret Park	144	Eudora Park	264	J.E.B. Stuart Park	384	Mount Royal Park	504	Springfield Estates ES
25	Barcroft Knolls Park	145	Fair Oaks Park	265	Jackson MS	385	Mount Vernon District Park	505	Springfield Forest Park
26	Baron Cameron Park	146	Fair Ridge Park	266	James Lee School Site	386	Mount Vernon HS	506	Springhill Recenter Park
27	Beech Tree ES	147	Fair Woods Park	267	James Lee SS	387	Mount Vernon Manor Park	507	Springvale Park
28	Bel Air Park	148	Fairfax Hills Park	268	James Madison HS	388	Mount Vernon Woods ES	508	Stanton Park
29	Belle Haven Park	149	Fairfax HS	269	Jefferson District Park	389	Mount Vernon Woods Park	509	Stenwood ES
30	Belle View ES	150	Fairfax Park Park	270	Jefferson Manor Park	390	Mount Zephyr Park	510	Stephen S. Foster MS Site
31	Belvedere ES	151	Fairfax Villa ES	271	Jefferson Sq Tech HS	391	Mountain Road District Park	511	Stone Crossing Park
32	Belvedere Park	152	Fairhill ES	272	Jefferson Village Park	392	Mountain View Alternative HS	512	Stone MS
33	Beldin Park	153	Fairview ES	273	John Byers Park	393	Muddy Hole Park	513	Stoneybake Park
34	Blake Lane School Site	154	Falls Church HS	274	John Mastenbrook - Greenway Downs	394	Mud Hole Park	514	Stratford Landing ES
35	Bonnie Brae ES	155	Falstaff Park	275	John Byers Park	395	Mulberry Hill Park	515	Stratford Landing Park
36	Borge Street Park	156	Farmington Park	276	Jones Branch Park	396	Munson Hill Park	516	Straton Woods Park
37	Bradcock ES	157	Fisher Park	277	Keene Mill ES	397	Nancy Sprague Cr AC	517	Stringfellow Park
38	Bradcock Park	158	Fitzhugh Park	278	Kemper Park	398	Navy ES	518	Stuart HS
39	Bren Mar Park	159	Flack Shop	279	Kensale Woods Park	399	Navy Vale Park	519	Stuart Road Park
40	Bren Mar Park ES	160	Flint Hill ES	280	Kent Gardens ES	400	Newington Commons Park	520	Sugarland Run Stream Valley Park
41	Brentwood Park	161	Floris ES	281	Kent Gardens Park	401	Newington Forest ES	521	Sugarland Run Stream Valley Park N
42	Briardiff Park	162	Floris School Site	282	Key MS	402	Newington Heights Park	522	Sugarland Run Stream Valley Park S
43	Briarwood Park	163	Forest Edge ES	283	Kilmer MS	403	North Hill Park	523	Sully Highlands Park
44	Briststone Park	164	Forestale ES	284	Kincheolce Regional Park	404	North Springfield ES	524	Sunny Valley ES
45	Brockfield ES	165	Forestville ES	285	Kings Glen ES	405	North Springfield Park	525	Surrey Square Park
46	Brockfield Park	166	Fort Belvoir ES	286	Kings Park ES	406	Notoway Park	526	Swanwick Park
47	Broyhill Crest Park	167	Fort Hunt ES	287	Kings Park Park	407	Oak Hill ES	527	Tamarack Park
48	Broyhill Park	168	Fort Hunt Park	288	Kings Park West Park	408	Oak Hill Park	528	Tara Village Park
49	Brun Park	169	Fox Hunters Park	289	Kingstowne Park	409	Oak Marr Park	529	Tattersall Park
50	Bryant AC	170	Fox Mill ES	290	Kirby Park	410	Oak Marr Recenter Park	530	Terra Centre ES
51	Bryant Ahs Park	171	Fox Valley Park	291	Kirk Park	411	Oak View ES	531	Terraset ES
52	Bryant Alternative HS	172	Foxstone Park	292	Lake Accotink Park	412	Oakborough Square Park	532	The Turner Farm Park
53	Bryn Mawr Park	173	Foxvale Park	293	Lake Anne ES	413	Oakton Community Park	533	Thomas Jefferson HS
54	Bucknell ES	174	Franconia District Park	294	Lake Braddock HS	414	Oakton ES	534	Thoreau MS
55	Bucknell Manor Park	175	Franconia ES	295	Lake Braddock Park	415	Oakton HS	535	Timber Lane ES
56	Bull Run ES	176	Franconia Forest Park	296	Lake Braddock Secondary	416	Ole Centreville Crossing	536	Timberly Park
57	Burgundy Park	177	Franconia Park	297	Lake Fairfax Park	417	Ole Centreville Road Park	537	Tollbrook Ridge Park
58	Burke Ed Cr SC	178	Franklin Farm Park	298	Lake Mercer Park	418	Ole Creek ES	538	Towers Park
59	Burke Lake & Golf Course	179	Franklin Glen Park	299	Lakeside Park	419	Ole Forge Park	539	Trailside Park
60	Burke Lake Park	180	Franklin MS	300	Lane ES	420	Olney Park	540	Trean MS
61	Burke Ridge Park	181	Franklin Oaks Park	301	Langley Fork Park	421	Orange Hunt ES	541	Twin Lakes Golf Course
62	Burke School	182	Franklin Sherman ES	302	Langley HS	422	Orange Hunt Estates Park	542	Twinbrook Road Park
63	Burke Station Park	183	Franklin Woods Park	303	Larchmont Park	423	Ossian Hall Park	543	Tyler Park
64	Bush Hill ES	184	Fred Crabtree Park	304	Larry Graves Park	424	Parklawn ES	544	Tysons Pimmit Park
65	Bush Hill Park	185	Freedom Hill ES	305	Laurel Hill ES	425	Parklawn Park	545	Tysons Woods Park
66	Byron Avenue Park	186	Freedom Hill Park	306	Laurel Hill Heritage Park	426	Patriot Park	546	Union Mill ES
67	Camelot ES	187	Frost MS	307	Laurel Hill Park	427	Patriot Park West Entrance	547	University Park
68	Camelot School Site	188	Frying Pan Farm Park	308	Laurel Ridge ES	428	Peterson Lane Park	548	Valley Crest Park
69	Cameron ES	189	Frying Pan Stream Valley Park	309	Lawyers Road Park	429	Pimmit Barn	549	Vernon Heights Park
70	Canterbury Woods ES	190	Garfield ES	310	Lee District Park	430	Pimmit Hills Alternative HS	550	Vienna ES
71	Canterbury Woods Park	191	Garnchayne Park	311	Lee High Park	431	Pimmit Hills Park	551	Villa D'Este Park
72	Cardinal Forest ES	192	George Mason Park	312	Lee HS	432	Pimmit View Park	552	Villa Lee Park
73	Cardinal Forest Park	193	George Washington Park	313	Lee Landing Park	433	Pine Ridge Park	553	Virginia Hill School Site
74	Carl Sandburg MS	194	Gilbert S McCutcheon Park	314	Lees Corner ES	434	Pine Spring ES	554	Virginia Run ES
75	Carl Sandburg School Site	195	Glasgow MS	315	Leewood Park	435	Pine Spring Park	555	Wakenfield Chapel Park
76	Carney Park	196	Glasgow Park	316	Lees Cr	436	Pinecrest Golf Course	556	Wakenfield Forest ES
77	Cartledge Parkway Park	197	Glen Forest ES	317	Lemon Road ES	437	Pleasant Hill Park	557	Wakenfield Park
78	Carson MS	198	Glen Hills Park	318	Lemon Road Park	438	Plum (Esdall Park) Center	558	Walnut Hill School Site
79	Cesar Lane Cr	199	Graham Road Community Building	319	Leawood Park	439	Pobun Woods Park	559	Walt Whitman School Site
80	Centre Ridge ES	200	Graham Road ES	320	Leo Santaballa	440	Poe MS	560	Wagles Mill ES
81	Centre Ridge North Park	201	Grand Hamptons Park	321	Leville W. Dupell ES	441	Poe Terrace Park	561	Washington Mill ES
82	Centre Ridge Park	202	Great Falls ES	322	Lewisville Center	442	Pohick Estates Park	562	Washington Mill Park
83	Centreville ES	203	Great Falls Grange Park	323	Lewisville Park	443	Pohick Stream Valley Park	563	Waverly Park
84	Centreville HS	204	Great Falls Nike Park	324	Lewisville Senior Center	444	Pole Road Park	564	Wayland Street Park
85	Chalier Woods Park	205	Green Spring Gardens	325	Lexington Estates Park	445	Popes Head Park	565	Waymewood ES
86	Chandon Park	206	Green Spring Village Site	326	Liberty MS	446	Poplar Tree ES	566	West Potomac HS
87	Chantilly HS	207	Greenbriar Commons Park	327	Lillian Carey Park	447	Poplar Tree Park	567	West Springfield ES
88	Chantilly Library Site	208	Greenbriar East ES	328	Lincoln Lewis-Vannoy Park	448	Potomac Hills Park	568	West Springfield HS
89	Chantilly Park	209	Greenbriar Park	329	Lincolnia Park	449	Powell ES	569	West Springfield Park
90	Chapel Acres Park	210	Greenbriar West ES	330	Lincolnia Senior Cr	450	Providence ES	570	West Springfield Village Park
91	Chapel Road Park	211	Greendale Golf Course	331	Lirway Terrace Park	451	Providence Recenter	571	Westbriar ES
92	Cherry Run ES	212	Greentree Park	332	Lisle Park	452	Quander Road Cr	572	Westfield ES
93	Cherry Run Park	213	Greentree Village Park	333	Little Difficult Run Stream Valley Park	453	Raglan Road Park	573	Westfield School Site
94	Chesterbrook ES	214	Greenway Heights Park	334	Little Hunting Creek Park	454	Ravensworth ES	574	Westgate ES
95	Chesterbrook School Site	215	Griffith Park	335	Little Run ES	455	Red Fox Forest Park	575	Westgate Park
96	Churchill Road ES	216	Grist Mill Park	336	Lockmeade Park	456	Reston North Park	576	Westgrove Park
97	Churchill Road Park	217	Groveton ES	337	Lodmidge Park	457	Reston Town Green Park	577	Westlawn ES
98	Clarke's Landing Park	218	Groveton Heights Park	338	Loisdale Park	458	Richard W. Jones Park	578	Westlawn HS
99	Clarks Crossing Park	219	Gunston ES	339	Loisdale Park (Kay Jennings AT)	459	Ridgeview Park	579	Westlawn School Site
100	Clearyview ES	220	Halley ES	340	London Towne ES	460	Riverbend Park	580	Weyanoke ES
101	Clemyontri Park	221	Hartland Green Park	341	Long Branch Falls Park	461	Riverside ES	581	White Oaks ES
102	Clermont ES	222	Haycock ES	342	Longfellow MS	462	Robinson HS	582	White Oaks Park
103	Clermont Park	223	Haycock-Longfellow Park	343	Longfellow School Site	463	Robinson Secondary	583	Whitman MS
104	Clifton ES	224	Hayfield ES	344	Longfellow SS	464	Rock Hill District Park	584	Wickford Park
105	Coatne ES	225	Hayfield HS	345	Lorton Park	465	Rocky Run MS	585	Wilburdale Park
106	Colin Powell ES	226	Hayfield Park	346	Lorton Station ES	466	Rolling Forest Park	586	Willow Pond Park
107	Collingwood Park	227	Hayfield Secondary	347	Lourie Archer ES	467	Rolling Valley ES	587	Willow Springs ES
108	Columbia ES	228	Heritage Hill Park	348	Lower Potomac Park	468	Rolling Valley West Park	588	Willow Woods Park
109	Colvin Run ES	229	Hemdon ES	349	Luna Park	469	Rolling Wood School Site	589	Wilton Woods School Site
110	Colvin Run Mill Park	230	Hemdon HS	350	Luther Jackson MS Park	470	Rolling Woods Estates Park	590	Windemere Park
111	Copper Intermediate School Site	231	Hemdon MS	351	Lynbrook ES	471	Rose Hill ES	591	Winterer Varsity Park
112	Copper MS	232	Herold Woods Park	352	Lynbrook Park	472	Rose Lane Park	592	Wolf Trap Park
113	Country Club View Park	233	Heywood Glen Park	353	Madison HS	473	Roundtree Park	593	Wolfrap ES
114	Craighorn Square Park	234	Hickory Run School Site	354	Manchester Lakes Park	474	Royal Lake Park	594	Woodburn ES
115	Crestwood ES	235	Hidden Pond Nature Center	355	Mantua ES	475	Royal Ridge Park	595	Woodburn School Site
116	Crooked Creek Park	236	Hidden Pond Park	356	Mark Twain Park	476	Ruckstuhl Park	596	Woodclawn ES
117	Crossfield ES	237	Hideaway Park	357	Marshall HS	477	Rutherford Park	597	Woodclawn Park
118	Cub Run ES	238	Historic Centreville Park	358	Marshall Road ES	478	Salona Park	598	Woodley Hills ES
119	Cub Run Recenter	239	Hogge Park, Boyd A And Charlotte M	359	Marshall King Jr. Park	479	Sanger ES	599	Woolley Park
120	Cub Run Stream Valley Park	240	Holiday Property	360	Mason Crest ES	480	Saratoga ES	600	Woodson HS

APPENDIX G - DETAILED CAPITAL IMPROVEMENT FRAMEWORK
CRITICAL PROJECTS

CRITICAL PROJECTS (Repair Existing)				
Asset	Project Type	Project Title	Estimated Total Project Cost	Years in which to be completed
Athletic Fields	Lifecycle replacements	Countywide Athletic Field Lighting Upgrade; systems in poor or fair condition beyond lifecycle. Countywide athletic field irrigation system replacement; systems in poor or fair condition beyond lifecycle.	\$10,099,625	1-5
Athletic Fields	Renovations	Synthetic Turf Replacement	\$9,675,000	1-5
Golf	Lifecycle replacements and renovation	Includes: Bunker renovation Lakes Course *\$400k FUNDED VIA BOND PREMIUM]; Lightning shelter renovations	\$591,250	1-5
Historic Site	Renovations	Historic site structures in need of near-term restoration, rehabilitation, or preservation (e.g., curator properties, museum sites)	\$8,772,000	1-5
Horticulture Parks	Renovations	Green Spring Gardens renovations for revenue generation	\$365,500	1-5
Infrastructure	Lifecycle replacements	Include: Ashgrove Electrical Panel Replacements (4) in Garage; Parking Lots, Roadways, Trails, and Security Lighting and Controls Upgrading ; Roof Replacements; Jefferson District improvements	\$4,611,213	1-5
Infrastructure	Renovations	Renovations and repairs to amusements, the Burke Lake Carousel; Area 1 Management Maintenance Facility	\$6,181,250	1-5
Multi Use Courts	Lifecycle replacements	Outdoor Court Lighting Upgrades; renovations and repairs	\$9,185,680	1-5
Nature Center	Renovations	Including: Hidden Oaks Facility Renovation; System wide study of nature center renovations and upgrades that should be completed	\$1,268,500	1-5
Outdoor Family Aquatics	Lifecycle Replacements	Watermine, including renovations to slides and rock work	\$424,625	1-5
Picnic Shelters	Renovations	Picnic Shelters renovation, including those in poor condition and beyond lifecycle	\$5,579,250	1-5
Playgrounds	Lifecycle replacements	Renovations and repairs to playgrounds	\$19,457,500	1-5
Playgrounds	Renovations	Playground Equipment - Upgrade Countywide	\$5,869,500	1-5
Recreation Center	Lifecycle replacements	Renovations at Cub Run RECenter, GW, Lee District, Providence, South Run, Spring Hill, Oak Marr, Wakefield; Audrey Moore RECenter - Replacement of two boilers [MIKE, LEAVE IN & ADD NOTE/ASTERISK, 1.5mil FUNDED VIA BOND PREMIUM]	\$61,255,690	1-5
Resource Based Parks	Renovations	Ecological restoration (natural capital projects)	\$5,482,500	1-5
Skate Parks	Renovations	Replace Existing Skate Ramps with new features including bowl, concrete elements, and ramp	\$738,310	1-5
Trails	Renovations	Improvements to trails internal to local parks; Countywide Pedestrian Bridge Improvement Project (replace/repairs 10% of approx 200 wooden bridges); Accotink Stream Valley Park; Cross County Trail Improvements; Holmes Run SV	\$6,367,161	1-5



SUSTAINABLE PROJECTS (1 OF 3)

SUSTAINABLE PROJECTS (Upgrade Existing)				
Asset	Project Type	Project Title	Estimated Total Project Cost	Years in which to be completed
Athletic Fields	Renovations	Synthetic Turf Replacement	\$12,523,500	6-10
Athletic Fields	Conversion	Including: Pine ridge Synthetic Turf Field [LEAVE IN, ADD NOTE 930k FUNDED VIA 2012 BOND AND BOND PREMIUM]; Greenbriar	\$2,359,500	6-10
District & Countywide Parks	Renovations	Upgrades and renovations to parks including, Braddock, ECL, Mason District	\$8,470,000	6-10
District & Countywide Parks	Land Acq	New Land Acquisition Projects, 25 acres	\$2,722,500	6-10
Golf	Renovations	Golf course, club house, driving range renovations (Greendale, Pine Crest, Oak Marr)	\$8,408,650	1-5
Golf	Renovations	Miniature golf renovations (Burke Lake, Jefferson, Oak Marr)	\$322,500	1-5
Golf	Renovations	Golf course and club house renovations (Jefferson, Oak Marr, Twin Lakes)	\$6,897,000	6-10
Grant	New	Leveraging partnerships and alternative funding (eg, Mastenbrook Grant Program)	\$430,000	1-5
Grant	New	Leveraging partnerships and alternative funding (eg, Mastenbrook Grant Program)	\$484,000	6-10

SUSTAINABLE PROJECTS (2 OF 3)

SUSTAINABLE PROJECTS (Upgrade Existing)				
Asset	Project Type	Project Title	Estimated Total Project Cost	Years in which to be completed
Historic Site	Renovations	Upgrades and renovations, including Historic Huntley, Frying Pan, Great Falls Grange	\$6,050,000	6-10
Historic Site	Renovations	Historic site structures in need of restoration, rehabilitation, or preservation (e.g., curator properties, museum sites)	\$7,744,000	6-10
Historic Site	Renovations	Cultural Resource Collections Facility	\$13,975,000	1-5
Horticultural Park	Renovations	Upgrades and renovations at Green Springs Garden	\$3,630,000	6-10
Infrastructure	Renovations	Renovations to parking lots and roadways, Countywide, Riverbend, Oak Marr	\$9,893,889	1-5
Infrastructure	Renovations	Renovations to restroom buildings at Arrowbrook, Braddock, Burke	\$322,500	1-5
Infrastructure	Renovations	Renovations to restroom buildings at Beulah, Fred Crabtree, Frying Pan, Lake Accotink, Lake Fairfax, Sully Highlands	\$726,000	6-10
Infrastructure	Renovations	Renovations and repairs to outdoor lighting	\$12,400,000	6-10
Infrastructure	Renovations	Energy Management Upgrades and improvements for energy savings for Revenue Fund and General Fund buildings	\$13,126,000	1-5
Lakefront park	Renovation	Improvements and upgrades to Lake Front parks including Burke Lake	\$5,000,000	1-5
Lakefront park	Renovation	Improvements and upgrades to Lake Front parks including Lake Fairfax, Lake Accotink	\$30,250,000	6-10
Local Parks	Renovations	Upgrades and renovations, including Nottoway	\$8,600,000	1-5
Local Parks	Renovations	Upgrades and renovations to parks including Poplar Tree, Stringfellow	\$10,890,000	6-10



SUSTAINABLE PROJECTS (3 OF 3)

SUSTAINABLE PROJECTS (Upgrade Existing)				
Asset	Project Type	Project Title	Estimated Total Project Cost	Years in which to be completed
Nature Center	Renovations	Upgrades to exhibits and renovations to nature centers, including Hidden Pond, Hidden Oaks	\$5,762,000	1-5
Nature Center	Renovations	Upgrades and renovations to nature centers, including Huntley Meadows	\$605,000	6-10
Playgrounds	Renovations	Renovations and repairs to playgrounds	\$19,457,500	1-5
Playgrounds	Renovations	Upgrades and renovations to destination playgrounds, Clemjjontri and Chessie's Backyard	\$12,315,985	6-10
Recreation Center	Renovations	Upgrades, expansions to RECenters (AMRC, CRRC, GWRC, LDRC)	\$36,138,880	1-5
Recreation Center	Renovations	Upgrades, expansions to RECenters (PRC, SRRC, OMRC, SHRC)	\$52,666,642	6-10
Trails	New	Pohick SV Trail - Burke Station Park to Hillside; Lake Accotink Natural Surface Trail System; Pohick SV Trail - Liberty Bell to Burke Station Park and Station Park to Hillside; Poplar Ford Hickory Forest Trail	\$2,479,552	1-5
Trails	New	Long Branch SV; Rutherford Park Bridge; Heather Down Bridge	\$999,128	6-10
Trails	Renovations	Long Branch SV; CCT Newington Forest Connector; Roundtree Park Trail Improvements; Oak Hill Trail Improvements (1100 LF asphalt trail)	\$2,262,660	1-5
Trails	Renovations	Countywide trails internal to parks; Flatlick SV Braddock to Stonecroft Trail Improvements; Holmes Run SV	\$4,613,917	6-10

VISIONARY PROJECTS (1 OF 2)

VISIONARY PROJECTS (New, Significant Upgrades)					
Asset	Project Type	Project Title	Estimated Total Project Cost	Years in which to be completed	
Athletic Fields	Conversion	Synthetic turf conversions, new lighting systems, including: South Run rectangle field #4; GW; Nottoway	\$3,977,500	1-5	
Athletic Fields	Conversion	Synthetic turf conversions, new lighting systems, including: Idylwood; Lee District; Great Falls Nike	\$5,904,800	6-10	
Athletic Fields	New	Athletic Fields, including: Audobon Estates (construct rectangle on leased property); Laurel Hill Heritage Area fields; LLV	\$32,708,720	6-10	
District & Countywide Parks	Renovation	Build out parks, including Langley Forks	\$3,225,903	1-5	
District & Countywide Parks	New	Redesign and build out parks, including: Baron Cameron; Laurel Hill; Mountain Road	\$45,931,139	6-10	
District & Countywide Parks	Land Acq	New Land Acquisition Projects (to reach BOS goal of 10% ownership of County land)	\$206,583,300	6-10	
District & Countywide Parks	Renovation	Upgrades and renovations at parks including: Turner Farm; Patriot; Franconia; Sully Woodlands	\$15,173,400	6-10	
Golf	New	Event pavilions at golf courses, Greendale, Jefferson District	\$774,400	6-10	
Grant	New	Alternative Funding to Leverage Partnerships	\$537,500	1-5	
Grant	New	Alternative Funding to Leverage Partnerships	\$605,000	6-10	
Historic Sites	Renovation	Upgrades and renovations at historic sites including Historic Centreville	\$3,630,000	6-10	
Historic Sites	New	Including Sully Historic Visitor Center, Colvin Run Mill visitor center	\$22,385,000	6-10	
Historic Sites	New	Fairfax County History Museum with partnerships (7,500 sf)	\$5,445,000	6-10	
Infrastructure	New	New parking, countywide	\$5,375,000	1-5	
Infrastructure	New	New parking countywide, including: Grist Mill, Rolling Valley West, Turner Farm	\$8,139,912	6-10	
Lakefront Park	New	Add Ropes Course through contractor	\$1,075,000	1-5	
Local parks	Renovation	Upgrades and renovations at local parks, including: Mason Neck West, McLean Central, Oakton Community, Ruckstuhl	\$11,495,000	6-10	
Local parks	New	Build out local parks per master plans, including: Mount Vernon Woods, North Hill	\$3,736,480	6-10	
Outdoor Family Aquatics	New	New spraygrounds through conversion of underused facilities	\$3,630,000	6-10	



VISIONARY PROJECTS (2 OF 2)

VISIONARY PROJECTS (New, Significant Upgrades)				
Asset	Project Type	Project Title	Estimated Total Project Cost	Years in which to be completed
Picnic Shelters	New	Large Group Pavilion/picnic shelters, including Lake Fairfax	\$2,924,000	1-5
Picnic Shelters	New	Large Group Pavilion/picnic shelters, including Lee District	\$987,360	6-10
Playgrounds	New	Outdoor Fitness Equipment	\$537,500	1-5
Playgrounds	New	Outdoor Fitness Equipment	\$605,000	6-10
Recreation Center	New	Design and construction of a new RECenter	\$60,500,000	6-10
Recreation Center	New	Field House Replacement	\$15,633,200	6-10
Resource Based Parks	New	New facilities including: Outdoor Stewardship Learning Zone, Old Colchester, Riverbend	\$26,750,680	6-10
Skate parks	New	New skate parks and skate spots	\$1,612,500	1-5
Skate parks	New	New skate parks and skate spots	\$1,815,000	6-10
Trails	New	New trails and connections, including: ECL, Hickory Run SS, Historic Centreville, Long Branch SV, Big Rocky Run SV, Lake Fairfax	\$2,945,393	1-5
Trails	New	New trails and connections, including: Cub Run SV, Difficult Run SV, Frog Branch SV, Grist Mill, Hunstman, Laurel Hill, Mason Neck West, Paul Springs SV, Richard Jones, Stone Crossing, Island Creek	\$10,175,693	6-10