



**PARKS & RECREATION ADVISORY COMMISSION
AGENDA
November 17, 2022**

**George L. Gordon, Jr., Government Center
1300 Courthouse Road
Conference Room 275**

Call to Order	7:00 pm
Silent Roll Call	7:00 pm
Approval of Minutes	7:00 pm
• October 20, 2022	
Public Comments (3 minutes each)	7:05 pm
New Business	7:10 pm
• Sand Volleyball Courts at Brooks Park (Eric Futrell)	
Unfinished Business	7:30 pm
• Rivere: Lease Property at Duff Green Park	
Liaison Reports	7:35 pm
• Planning Commission Liaison	
• School Board Liaison	
Commission Member Comments	7:40 pm
Director's Report	7:50 pm
Adjournment	8:00 pm

**PARKS & RECREATION ADVISORY COMMISSION
REGULAR MEETING MINUTES**

Thursday, October 20, 2022

The Stafford County Parks & Recreation Advisory Commission held its regular monthly meeting Thursday, October 20, 2022, at The George L. Gordon, Jr., Government Center. The meeting was called to order at 7:00 PM by Jay Rucker.

SILENT ROLL CALL

<u>Members</u>	<u>Present</u>	<u>Absent Reported</u>	<u>Absent Not Reported</u>	<u>Staff</u>	<u>Guests</u>
Vincent Applewhite	P			Brion Southall	Terry Mitchell
David Carpenter	P			Judy Sokolowski	Scott Huff
Eric Futrell	P				John Holden
Michael Parkyn	P				Barbara Trehorne
Christopher (CW) Reed	P				Mikel Manchester
Jay Rucker	P				Buck Cox
<i>Martin Martinez, PC</i>			<i>A</i>		Greg Baker
<i>Alyssa Halstead, SB</i>	<i>P</i>				Mark Ellis
Voting members in bold					

APPROVAL OF MINUTES

- The minutes from the July meeting were unanimously approved.

PUBLIC COMMENTS

- Barbara Trehorne, Greg Baker, Scott Huff, and Mark Ellis spoke on behalf of Stafford pickleball players, the increase in the popularity and players of the sport, and the need for more courts.

NEW BUSINESS

- Lease Property at Duff Green Park (Brion Southall)
Ms. Mikel Ann Manchester, Executive Director of Operations with RIVERE, made a presentation on behalf of her company regarding RIVERE's request to lease the County's 60+ acres of undeveloped property at Duff Green Park for an environmental center and botanical garden. Ms. Manchester asked for a recommendation from the Commission on the proposal, as this item is scheduled to go to the Board of Supervisor's meeting on 11/15/22.

Jay Rucker, Chair, declined to bring this item to a vote; instead responding it was too big of a decision to make now with limited information. He requested Rivere's proposal and sketches and said Rivere can take this item to the Board of Supervisors on November 15, and if the Board sends it back to the Commission, the Commission can discuss it further at their meeting

on November 17.

Eric Futrell: the proposed 12 acres for a playground should allow for staff and Commission members' input.

Jay Rucker: urged members to do their research on this project and send questions to Brion Southall or Judy Sokolowski. Ms. Manchester is to send information to Brion via hard copy/pdf; website for more information is RivereCenter.com

After a short time, John Holden, Director of Economic Development and Tourism, said this item would be rescheduled to the December Board meeting, which would allow the Commission to discuss this item again at their November meeting.

- Pickleball Courts at Pratt and Curtis Parks (Brion Southall)
 - Additional pickleball courts for Pratt and Curtis Parks are included in the FY24 CIP
 - Courts available at Rowser Building, Courthouse Community Center, Melcher's Complex, Curtis Park, Pratt Park
 - Pickleball open gym is available at Rowser on Thursday nights
 - Two basketball courts at Curtis Park will be studied for use; looking at converting them to pickleball courts
 - Master plan for Musselman Park is underway, which includes a conceptual plan; public meetings will be held for input. Proffers of \$600,000 to begin Musselman Park; \$800,000 for Patawomeck Park
 - Michael Parkyn requested staff to provide a list of pickleball players
 - Jay Rucker asked members to talk with their Board member and relay the interest in pickleball

UNFINISHED BUSINESS

- None.

LIAISON REPORTS

- Planning Commission Liaison (Martin Martinez) – not present
- School Board Liaison (Alyssa Halstead)
 - Asked if PRCF has electric signs at parks to advertise? Wants to actively engage the community.
 - Jay Rucker asked about using schools' signs to request "gift" signs to parks?
 - Michael Parkyn asked the state of pickleball evolution in schools?

COMMISSION MEMBER COMMENTS

- Eric Futrell: Asked about boys' volleyball clubs at high schools; Mountain View High School had a club and was disbanded. One club was shut down by VHSL, which indicated they would

not back “clubs”; however, other areas, such as Ashland, has VHSL sanctioned clubs. His son finished the Eagle Scout project refurbishing 18 benches; USA Volleyball national tournament was held recently, with Nicholas Futrell taking 3rd place in the nation; goes to Richmond to play; there are two sand volleyball courts at Brooks and Curtis Parks; could three more courts be put in at Brooks? Requested sand volleyball courts be placed on next month’s agenda.

- David Carpenter: Will educate himself about pickleball
- C.W. Reed: Welcome, Michael; thanks to PRCF, doing great work; went to Curtis Park the end of September, and it looked excellent; looking forward to discussing Rivere next month
- Vincent Applewhite: glad to be back
- Jay Rucker: encouraged attendance and conceptual plan meetings; asked about the “pay to park” summer pilot program at Historic Port of Falmouth. Brion Southall said most of the money was collected on the weekends, with many families visiting from other areas.

STAFF REPORTS

- No questions.

DIRECTOR'S REPORT (Brion Southall)

- Present information to the Board on 11/1/22 of summer operations at Historic Port of Falmouth
- Held Special Olympics disc golf tournament at Curtis Park the weekend after hurricane Ian; more than 100 people attended and raised more money than in past years
- Carl Lewis Community Center caught fire in July; County received \$200,000 from insurance; asking the Board on 11/1/22 to budget and appropriate these funds to raze the building; there is \$700,000 in proffer funds to plan/design a new building in its place
- Fall Festival was held at Pratt Park on 10/8/22, with the 10th Annual Pumpkin Derby being one of the popular events of the festival; over 500 people attended
- Thursday Pickleball Drop-in program has 5 players

ADJOURNMENT

The meeting adjourned at 8:42 PM.

:jls

P&R Commission Questions for Rivere

- The City of Fredericksburg owns land on both sides of the river designated for conservation. What makes Duff Park more attractive than any of the cities undeveloped property?
- What are the proposed terms of the lease? Is there a financial gain for Parks and Recreation to be able to develop park land elsewhere?
- We have a deficit of available parkland so signing a large parcel over with no financial return is bad for Stafford.
- How does this benefit the citizens of Stafford?
- I want to know if the land they own is zoned for use by them for their office/research center yet? I am not sure it has been approved yet.
- Another factor I'm looking at is the projected economic impact from the botanical gardens. Can they predict an economic return to the county for the lease and revenue from entrance fees?
- Can we also get a little more background info on Rivere? Who founded them? What year? Why? What other activities are they involved in?
- I've been a part of leagues using school diamonds, which appear to be in use to their capacity. My question is really about asking the presenter to take a more serious look at her comment that P&R could use school fields.
- The land donation to UMW is very interesting! Green donated land so the rowing club could use ... the water. What enticed the university to give this chunk of land away?
- What enticed the university to sell their chunk of land?



RIVERE

**FACILITATE
PROMOTE
SUPPORT**

RIVERESM aims to join and complement the great environmental centers of the world sharing a similar mission to mitigate impacts of human population growth and global climate change on freshwater systems.

4730 Wallace Lane, Fredericksburg, VA 22408



**WHO
WE ARE**

Due to its unique location and associated pressing environmental concerns, RIVERESM is in an excellent position to serve as a regional and global magnet for watershed research and conservation by providing an innovative center that supports water research, technology, education, and ecoculture within the Rappahannock region.

RESEARCH

Offering flexible coworking and collaboration space, labs, greenhouse, direct access to the Rappahannock River, Best Management Practice landscaping testing grounds, bunkhouse accommodations

EDUCATION

Supporting educational outreach through a collaboration with Friends of the Rappahannock and Virginia Cooperative Extension

TECHNOLOGY

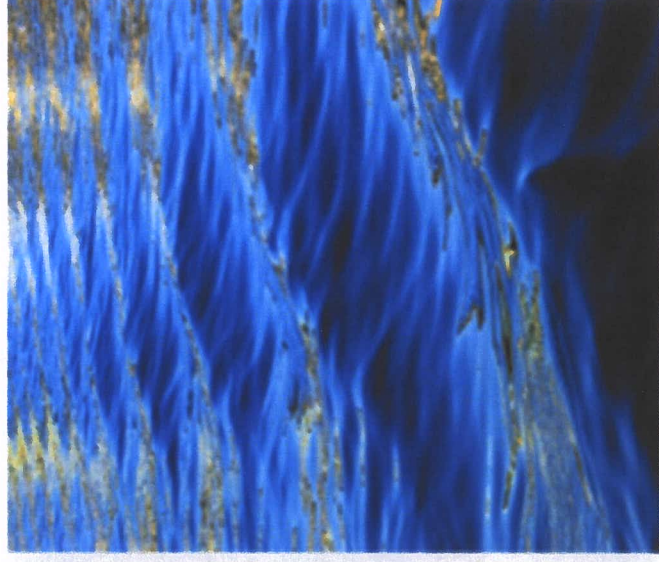
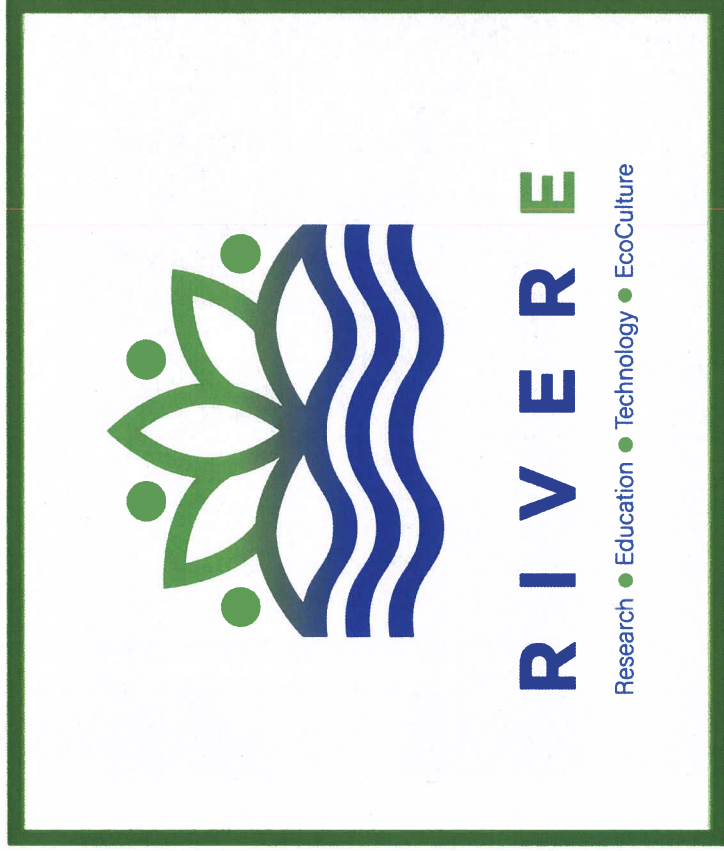
Supporting water research using wireless sensor technologies, machine learning, and predictive modeling through the Rappahannock SmartRiver

ECOCULTURE

Supporting ecocultural outreach with community access to botanical gardens that weave Indigenous and Scientific Ecological Knowledge into the landscape



www.RIVEREcenter.org



Mikel Ann Manchester, Executive Director

(757) 641 - 4150 • MManchester@RIVERcenter.org

Promote • Support • Facilitate



Research

Education

Technology

Ecoculture



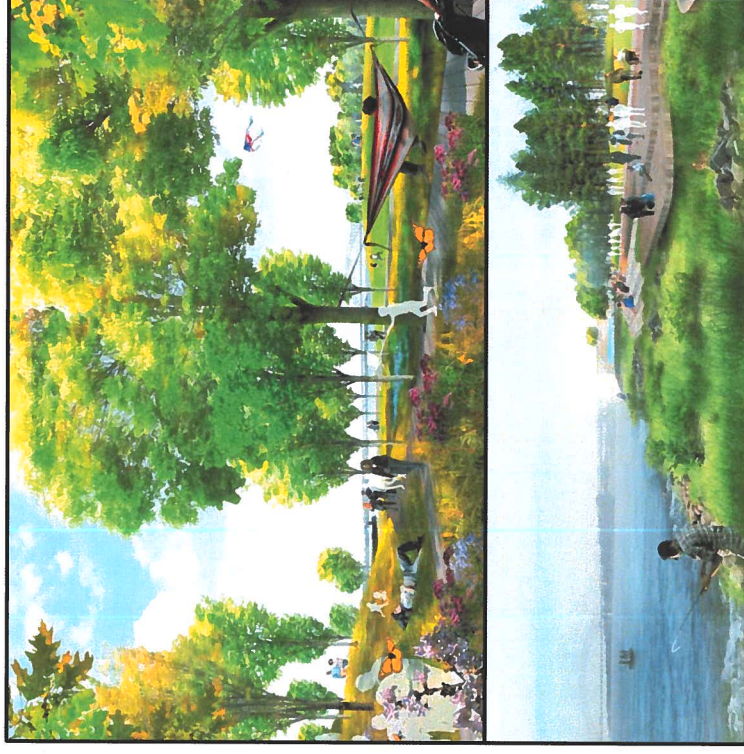
Tourism Impact

			
George Washington Foundation	Chatham Manor	Lewis Ginter Botanical Gardens	Norfolk Botanical Gardens
30,000	40,000	391,000	507,000

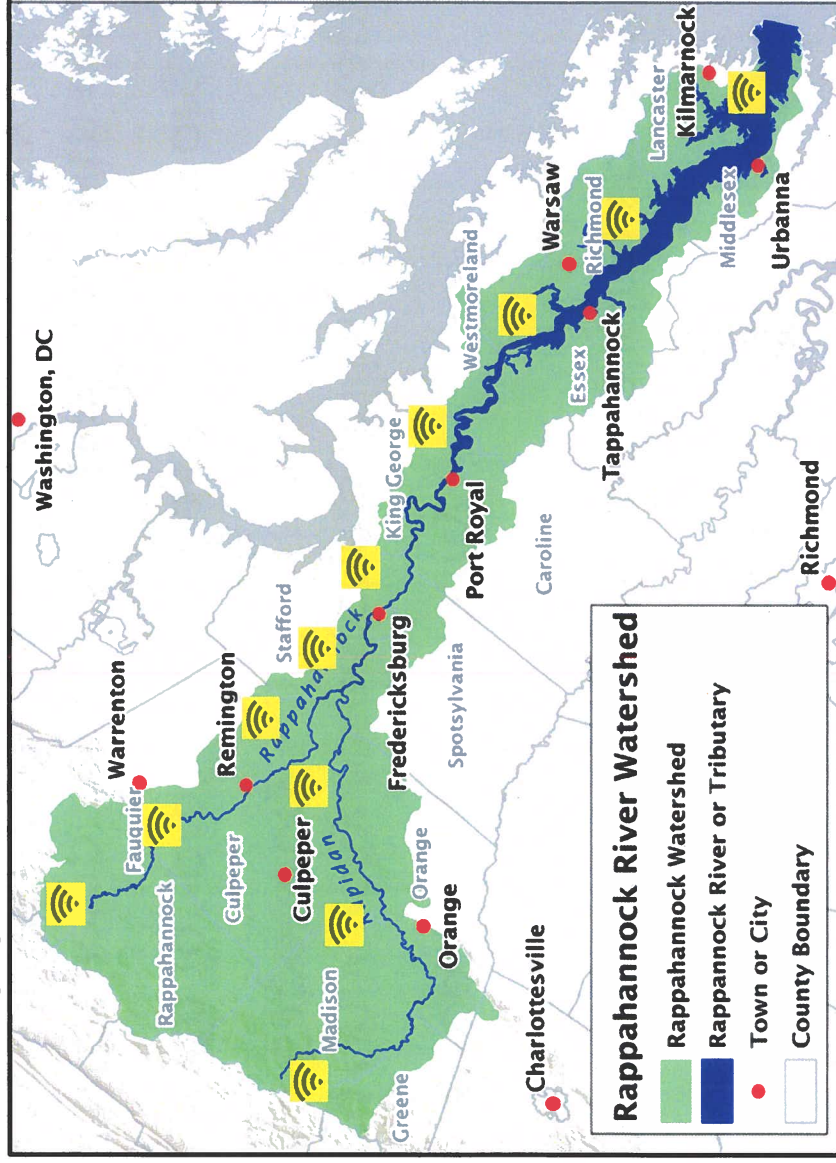
Tourism volume will increase economic benefits for Stafford County.



Native Botanical Gardens

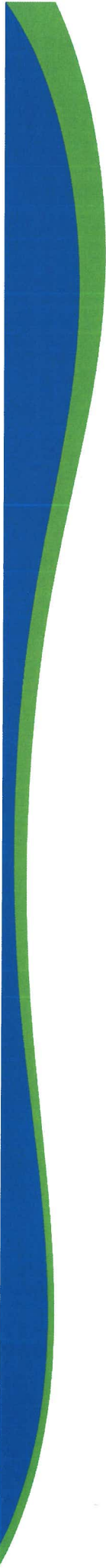


Rappahannock SmartRiver



Establish Virginia's first SmartRiver in Stafford County



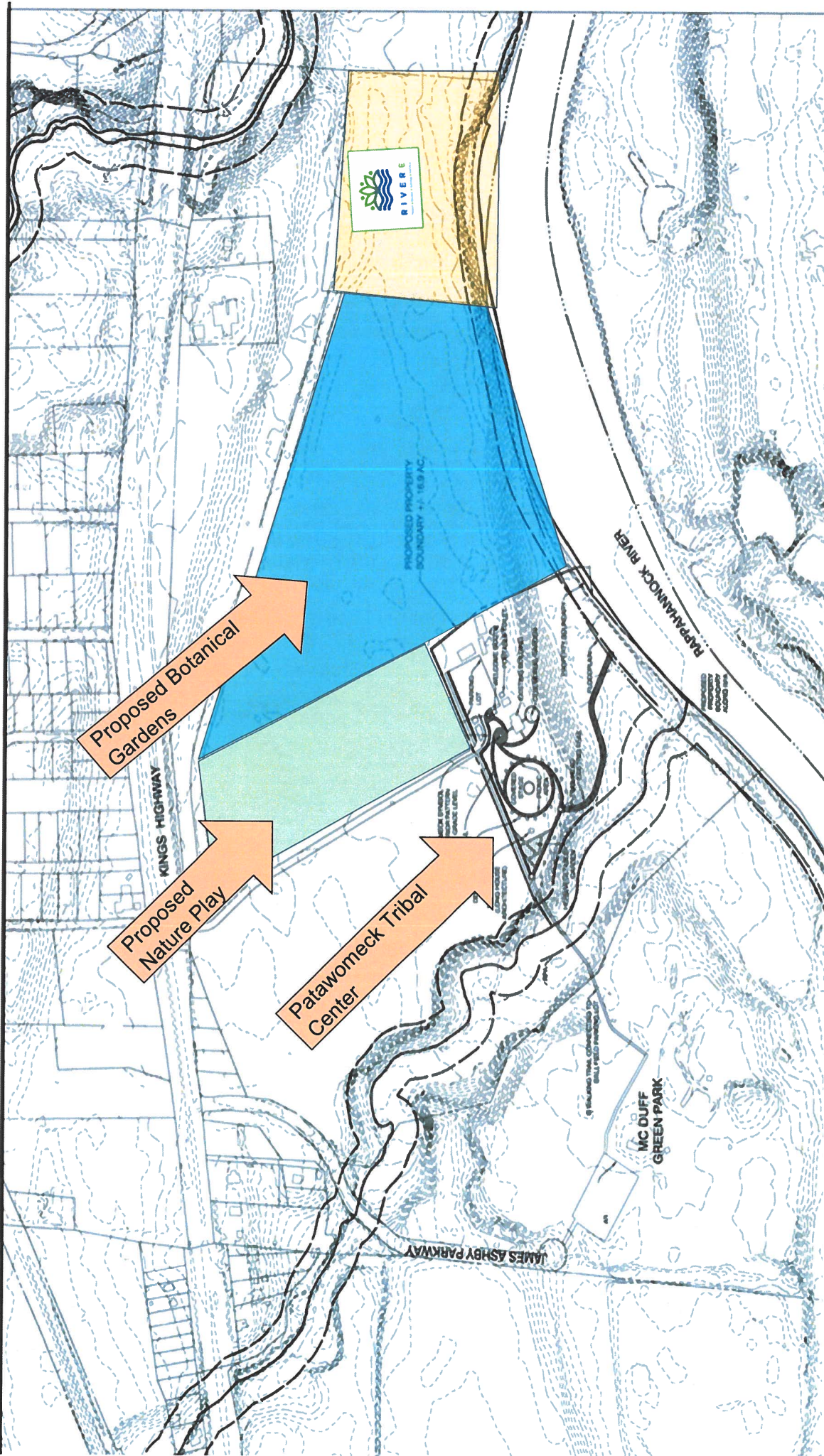


Business Model

- ❖ Operational Sustainability created leasing space within the Ecological Center
- ❖ 30% Leased space = profitability
- ❖ Attracting university researchers utilizing the Rappahannock River as a Living Laboratory
- ❖ Working with for-profit as well as non-profit organizations
- ❖ IOT Sensor Development in collaboration with researchers and the Smart Community Testbed in Stafford County



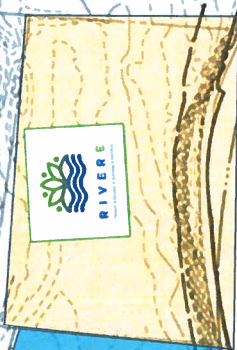




Proposed Botanical Gardens

Proposed Nature Play

Patawomeck Tribal Center



PROPOSED PROPERTY BOUNDARY ± 16.9 AC.

RAPPAHANNOCK RIVER

KINGS HIGHWAY

JAMES ASHBY PARKWAY

MC DUFF GREEN PARK



Rappahannock
River Roundtable
Blue Ridge to the Bay



CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

If we don't take care of our environment, where will we live?





September 1, 2022

Mikel Ann Manchester, M.S., CBLP
Executive Director of Operations – RIVERE
4730 Wallace Lane
Fredericksburg, VA 22408

RE: RIVERE Stafford County 60 Acre Lease

**EXECUTIVE
COMMITTEE**

Andrew Dolby
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Lee Pugh
Vice Chair

Tamara Muldrow
Treasurer

April Peterson
Secretary

AT LARGE

Ben Rateman

Berkley Mitchell

Brad Lamphere

Chris Stec

Cynthia Lucero-Chavez

Molly Flurry

Robin Huddle

Taryn Brice-Rowland

Veronica Kelly

Wilson Greenlaw

Zeke Moore

EXECUTIVE STAFF

Daria Christian
Executive Director

Bryan Hofmann
Deputy Director

Dear Mikel,

Friends of the Rappahannock is pleased to offer our support to RIVERE and the Stafford County Economic Development Authority for the proposed lease of 60 acres for the RIVERE center.

Friends of the Rappahannock has been involved and supported the development of the RIVERE Ecological Center from the start of the project. We see the opportunity to lease 60 acres adjacent to the Patowomeck Tribal Center and Duff McDuff Green Memorial Park as an excellent opportunity for RIVERE, Stafford County, and the surrounding communities.

Once developed, our organization plans to expand our environmental education programs to include offerings at the RIVERE center. This opportunity will enable us to significantly increase the scale and impact of our programs. The first step is the successful lease of the proposed property which we fully support.

Thank you and we look forward to working with you as the project progresses.

Sincerely,

Daria Christian
Executive Director



**Rappahannock
River Roundtable**

Blue Ridge to the Bay

Date: August 31, 2022

To: Mikel Ann Manchester, M.S., CBLP
Executive Director of Operations – RIVERE
4730 Wallace Lane
Fredericksburg, VA 22408

RE: RIVERE Stafford County 60 Acre Lease

Dear Mikel,

The Rappahannock River Roundtable is a strategic partnership of stakeholders dedicated to land and water conservation, community outreach and education, and capacity building throughout the entire Rappahannock River Watershed. We work collectively to accelerate the pace of high priority conservation efforts across the region.

Our member partners include planning district commissions, watershed non-profits, land trusts, state and federal agencies, universities, local governments, and more. We have and continue to support the development of the RIVERE project to bring a brick and mortar facility to the region to increase the resources available to our member partners.

The RIVERE center needs a physical home and the proposed 60 acre lease in Stafford County is an excellent option. We support RIVERE and the Stafford County Economic Development Authority working together to secure a long term lease of 60 acres for the RIVERE center.

Thank you and please let us know if you have any additional questions.

Best wishes,

Bryan Hofmann
Coordinator
Rappahannock River Roundtable



CHESAPEAKE BAY FOUNDATION

Saving a National Treasure

OFFICERS

Elizabeth Oliver Farrow
CHAIR

Otis S. Jones
VICE CHAIR

Hilary Harp Falk
PRESIDENT AND CEO

David A. Fogle
TREASURER

William A. Agee
SECRETARY

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Dara C. Bachman

R. Bruce Bradley

Joan P. Brock

George L. Bunting Jr.

Michael J. Chiaromonte

Brian Cobb

Margaret M. Freeman

Alexandra Grayson

Jennifer E. Green

Harry S. Gruner

Ann D. Horner

Robert A. Kinsley II

Katie Z. Leavy

Jonathan D. Manekin

Anne Mehlinger

Pamela B. Murphy

Mamie A. Parker, Ph.D.

Crystal Patterson

Anna R. Pauletta

Ann Pelham

Nathaniel J. Rose

Janine J. Smith

J. Sedwick Sollers III

R. Todd Stravitz, MD

Sandra E. Taylor

Preston M. White

Robert H. Whitescarver

Stephen M. Wolf

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W. Russell G. Byers Jr.

D. Keith Campbell

Louisa C. Duemling

Richard L. Franyo

Alan R. Griffith

Carolyn Groobey

Ann Fritz Hackett

C.A. Porter Hopkins

T. Gaylon Layfield III

Harry T. Lester

Byron F. Marchant

M. Lee Marston

Wayne A. Mills

Arnold I. Richman

Marie W. Ridder

James E. Rogers

Truman T. Semans

Simon Sidamon Eristoff

Jennifer Stanley

Thomas H. Stoner

Bishop Eugene Taylor Sutton

Alan L. Wurtzel

August 24, 2022

Dear RIVERESM Leadership Team:

On behalf of the Chesapeake Bay Foundation (CBF), I am pleased to express support for RIVERESM and the vision to create an ecological center on the Rappahannock River in Stafford County. I see many exciting opportunities for collaboration between CBF and RIVERESM in support of environmental research, education and in maintaining momentum toward restoring the Bay, rivers, and streams for today and future generations. The creation of the RIVERESM Center on the Rappahannock promises to complement CBF's work of devising and implementing effective, science-based solutions to the pollution degrading the Chesapeake Bay, its rivers and streams.

We congratulate Buck Cox for the recent acquisition of a 14.5-acre property adjacent to the Duff McDuff Green Park and the Patawomeck Tribal Center in Stafford County where the RIVERESM Center plans to offer research and educational opportunities, including walking trails for the community to enjoy.

I look forward to continuing collaboration with RIVERESM to bring the ecological center, botanical gardens and SmartRiver concept to Stafford County!

Sincerely,

Margaret (Peggy) Sanner
CBF Virginia Executive Director



June 29, 2022

Re: RIVERESM Ecological Center

Dear RIVERE Leadership Team,

On behalf of Lewis Ginter Botanical Garden, I am pleased to express our support for RIVERESM. We are excited by the vision of RIVERESM to create a Native Botanical Garden in Stafford County, adjacent to the building site for the RIVERESM Ecological Center and the Patawomeck Tribal Center. The native botanical garden is a logical addition with RIVERESM's focus on supporting and promoting research, education, technology, and ecoculture. Incorporating best management practices into the gardens, with unique landscape designs involving ecosystem restoration and environmental awareness, will educate the public on water quality for the Rappahannock River and the Chesapeake Bay watershed. Creating drifts of color in native plantings will be both appealing for the public and provide habitat restoration for the environment.

Our Garden is keen to partner with RIVERESM in support of botanical research and excited to collaborate with other stakeholders on this endeavor. We applaud the related efforts of RIVERESM, on the Rappahannock River and will offer technical assistance as needed for project outcomes of the proposed Native Botanical Garden that will benefit Stafford County and the region.

Thank you for your consideration,

Brian Trader

President and CEO, Lewis Ginter Botanical Garden

RIVERE in Stafford County will not only be a significant boost to the tourism industry, but also provide a much-needed place for community

**LEWIS
GINTER
BOTANICAL
GARDEN**
1800 Lakeside Avenue
Richmond, VA 23228
804.262.9887
lewisginter.org

RAPPAHANNOCK AREA
COMMUNITY SERVICES BOARD

RIVERESM Ecological Center
4730 Wallace Lane
Fredericksburg, VA 22408

Dear RIVERESM Ecological Leadership Team,

Rappahannock Area Community Services Board (RACSB) wishes to extend support for RIVERESM's efforts to develop an ecological, educational, and research center on the Rappahannock River in Stafford. RIVERESM's vision includes opportunities for collaboration with diverse individuals and organizations. The project represents synergy of Stafford's Native history, natural resources, educational institutions, and technological advances.

RACSB seeks to promote growth, connection, and opportunities for the individuals we serve. RIVERESM Ecological Center has the potential to provide individuals with physical, intellectual, and behavioral health challenges the healing benefits of connecting with nature in the open garden space. One of RACSB's properties is adjacent to the proposed Ecological Center. The location on Kings Highway, Rappahannock Adult Activities Inc (RAAI), serves adults with intellectual and developmental disabilities through a variety of recreational, restorative, and therapeutic activities. RAAI's horticulture program plays a significant role in promoting community engagement, vocational and social skill development, and occupational growth. We look forward to the possibilities of collaborating with RIVERESM on RAAI's horticultural programs as well.

RACSB hopes to witness the development of the RIVERESM Ecological Center in Stafford County. The Center will offer numerous benefits to the local environment, while enhancing community collaboration and engagement.

Sincerely,



Joseph Wickens, Executive Director

600 Jackson Street
Fredericksburg, VA 22401
540-373-3223

RappahannockAreaCSB.org

hopestarter 



VIRGINIA AGRICULTURAL EXPERIMENT STATION
**HAMPTON ROADS AGRICULTURAL
RESEARCH AND EXTENSION CENTER**
VIRGINIA TECH

Hampton Roads AREC
1444 Diamond Springs Road
Virginia Beach, Virginia 23455

August 10, 2022

Dear RIVERESM Leadership Team:

I am writing to express my support for RIVERESM and the creation of an ecological center and native botanical gardens in Stafford County. As a professor in Biological Systems Engineering at Virginia Tech (VT BSE) and a specialist for Virginia Cooperative Extension (VCE), I look forward to joining with research and educational outreach opportunities made available through a collaboration with RIVERESM.

My research focuses on improving urban stormwater management at its source, advancing the design stormwater best management practices (BMPs), to improve the resulting water quality. Through my extension program, I introduce proven green infrastructure (GI) research to stormwater managers and designers as they adapt designs to improve water quality performance. Another program goal is to provide appropriate information to the public that will build capacity and knowledge on improving the quality of urban runoff and other nonpoint source issues. I develop education programs targeted at groups with the greatest need in the most current issues in stormwater management. These include developing a watershed-based educational series, providing technical and educational guidance on stormwater BMPs, and working collaboratively with local/state/federal agencies, consultants, and other academics in developing an evaluation protocol for BMPs that utilize innovative, proprietary technologies.

I am happy to support RIVERESM in a number of ways. First, I look forward to building upon the collaboration and support that RIVERESM has provided my research in alliance with UMW to assess runoff water quality within the City of Fredericksburg. Expanded research efforts will include working with RIVERESM on piloting water research involving emerging sensor technologies, machine learning, and predictive modeling through the SmartRiver concept in collaboration with Dr. Durelle Scott (VT BSE) and Dr. Feras Batarseh (Artificial Intelligence Assurance and Applications Lab at VT in Arlington). I am also interested in working with RIVERESM to establish a native botanical garden that increases public awareness about native plants, reduces agricultural chemical inputs, and promotes BMPs with display gardens and hands-on exhibits for home landscapes. Finally, I am happy to serve on the RIVERESM Research and Conservation Advisory Board to help guide research and technology needs for the Center.

In sum, the RIVERESM Ecological Center has great potential to enhance the Rappahannock River and Chesapeake Bay watersheds, as well as provide educational outreach and ecotourism opportunities in Stafford County. I'm happy to be a part of this exciting initiative!

Sincerely,

A handwritten signature in black ink, appearing to read 'DJS', with a stylized flourish at the end.

David J. Sample, Ph.D., P.E., D.WRE
Professor

August 16, 2022

Dear RIVERE Leadership Team,

On behalf of the Hydroecology and Watershed Engineering Lab in the Department of Biological Systems Engineering (BSE) at Virginia Tech, I am pleased to express our support for RIVERE. My lab is excited by RIVERE's vision to create an ecological center in Stafford County to support research, education, technology, and ecoculture on the Rappahannock River and improve water quality in the Chesapeake Bay watershed. We are particularly interested in working with RIVERE to support water research involving emerging sensor technologies, applied machine learning and predictive modeling by bringing the Smart River concept to the Rappahannock River in Virginia.

Our lab's vision is to improve water resources through a combination of fundamental research and application to applied stream / wetland restoration. The goal of our work is to produce tangible results that land managers, policy makers, and other researchers can use to benefit society. Applications include stream/wetland restoration, watershed management, and pollution control. We work closely with other BSE faculty, the Center for Watershed Studies at Virginia Tech, the Cross-Boundary Biogeosciences group at VT, and other scientists within the university and beyond to develop workable and sustainable solutions (e.g., stream restoration) to reduce our impacts on aquatic resources. Our lab's goals align with RIVERE's vision, and we see this as a unique opportunity to work with a range of stakeholders, scientists, and educators on water sustainability and serve as a model for other growing regions in the mid-Atlantic and beyond.

Building on my own continental work using sensor data from the U.S.G.S., I envision an initial opportunity within the Rappahannock River Basin to develop water forecasts that include not only water quantity (e.g., water flowrate and water level), but also fundamental water quality variables including temperature and salinity. Starting with simple, inexpensive sensors will provide not only a proof of concept, but also relevant forecasts for recreation (e.g., fishing, canoeing) and water managers. This type of project will kickstart a collaboration with Dr. Feras Batarseh, Dr. David Sample and with RIVERE, and develop demonstrated use-cases of the SmartRiver concept. The RIVERE center will provide a truly unique opportunity in the U.S. to advance the sustainability of our water resources, and I fully expect RIVERE will positively impact the local community and attract researchers from academia, government, and the private sector. The center itself provides a unique opportunity to collaborate with non-academics under one roof, in addition to the ability of providing bunk housing and direct river access. We're also excited by RIVERE's interest in demonstration of Best Management Practices, where we see this as an opportunity to engage with the local community and with our own extension and educational missions. Given my belief in RIVERE's success, I am committed

to serve on RIVERE's Research and Conservation Advisory Board to help guide research and technology integration.

I look forward to the opportunity to partner with RIVERE to bring the SmartRiver concept to Virginia!

Sincerely,

A handwritten signature in black ink, appearing to read "Durelle Scott". The signature is fluid and cursive, with a stylized "D" and "S".

Durelle Scott, Associate Professor and
Assistant Department Head

Letter of Support: Feras A. Batarseh, A3 lab, ECE, Virginia Tech.



6/27/2022

Dear RIVERESM Leadership Team:

On behalf of the Artificial Intelligence Assurance and Applications (A3) Lab at Virginia Tech, I am pleased to express our support for RIVERESM. We are excited by RIVERE'S vision to create an ecological center in Stafford County to support research, education, technology, and ecoculture on the Rappahannock River and improve water quality in the Chesapeake Bay watershed. As A3 director, my team and I are particularly interested in working with RIVERESM to support water research involving emerging sensor technologies, applied machine learning, and predictive modeling by bringing the Smart River concept to the Rappahannock River in Virginia. Through the strategic placement of a wireless sensor network that continuously collects water quality data throughout the Rappahannock, the SmartRiver concept will require support for big data storage, computing power, and data security. The A3 Lab is interested in partnering with RIVERESM to support this effort.

My research lab specializes in deploying AI across different domains and providing data-driven solutions to persisting public policy problems. We develop AI algorithms that provide assurance for agricultural applications, build models for farmers, food producers, and test for security issues and public policy aspects to ensure that algorithms work correctly. Recently, our work has focused on water supply systems and on coastal Virginia in relation to issues of water, agriculture, climate, and resiliency. The A3 lab is also interested in understanding the effects that episodic events have on patterns in water quality data and developing ways to address those issues. Our overall goal is to improve the quality of water data to inform better decision-making.

The A3 lab is currently seeking big datasets from which to develop and evaluate algorithms, and study data issues associated with outlier events, major storms, and related security issues. We see great potential in collaborating with RIVERESM on the SmartRiver initiative. We can contribute to this initiative through our research expertise, coding ecosystem and collaborations, existing developed packages for similar domains, and by providing associated researchers support on best practices regarding data storage and computing power for applied water quality research, and potential computational resources support.

We look forward to the opportunity to partner with RIVERESM to bring the SmartRiver concept to Virginia!

Feras A. Batarseh

Research Associate Professor

Bradley Department of Electrical and Computer Engineering

Affiliate faculty, Center for Advanced Innovation in Agriculture (CAIA)

Virginia Polytechnic Institute and State University (Virginia Tech)

ECE Page: <https://ece.vt.edu/people/profile/batarseh>

CAIA Page: <https://caia.cals.vt.edu/people/affiliate-faculty/feras-a--batarseh.html>

Research Lab: <https://ai.ece.vt.edu/>



VT Research Center 3-184

900 N. Glebe Rd., Arlington, VA 22203

P: (571) 858-3126

C: (321) 276-9448



COLLEGE OF NATURAL
RESOURCES AND ENVIRONMENT
VIRGINIA TECH

Virginia Water Resources Research Center
310 West Campus Drive
210 Cheatham Hall (MC 0444)
Blacksburg, Virginia 24061-1036
P: (540) 231-0711 F: (540) 231-6673
<http://www.vwrrc.vt.edu>
stephen.schoenholtz@vt.edu

July 18, 2022

Dear RIVERESM Leadership Team:

On behalf of the Virginia Water Resources Research Center (VWRRC), I am pleased to express our support for RIVERESM. We are excited by RIVERE's vision to create an ecological center in Stafford County to support research, education, technology, and ecoculture on the Rappahannock River and improve water quality in the Chesapeake Bay Watershed.

The VWRRC is affiliated with Virginia Tech's College of Natural Resources and Environment and is a member of the National Institutes for Water Resources and the Universities Council on Water Resources. We offer resources and support to researchers, educators, and decision makers throughout the Commonwealth of Virginia. We do this by facilitating collaborative research, outreach, and education programs to develop solutions to water-resources challenges. We work across Virginia's academic institutions and with federal, state, regional, and nonprofit communities.

The VWRRC will enthusiastically support RIVERESM by promoting their activities and initiatives through our access to water research faculties across the state, and our network of 53 other water centers and institutes across the country. We can also promote RIVERESM through our work involving academics and training, including student internships. Finally, we would be happy to partner with RIVERESM on grant proposals. In particular, we can help with RIVERESM in the broader impacts section of grant proposals through development of outreach and student involvement.

I look forward to the opportunity to partner with RIVERESM to bring the SmartRiver concept to Virginia!

Sincerely,

Stephen H. Schoenholtz
Professor and Director

Dear RIVERESM Leadership Team:

On behalf of the College of Arts and Sciences at the University of Mary Washington (UMWCAS), I am pleased to express our support for RIVERESM and the vision to create an ecological center on the Rappahannock River in Stafford County. I see many exciting opportunities for a collaboration between UMWCAS and RIVERESM in support of research and undergraduate education. With over 40 major programs in UMWCAS, ranging from Computer Science and Environmental Science to Art and Communication, the following are a few examples of how the RIVERE Ecological Center can enhance research and experiential learning opportunities for our undergraduate students:

- A collaboration between our natural science programs and RIVERE can enhance UMW's undergraduate research to include direct boat launch access to the river, canoe storage for field-based research on the Rappahannock, and hands-on Best Management Practice research in the "living laboratory" botanical gardens.
- RIVERE's emphasis on supporting researchers' Broader Impacts through outreach and ecotourism can provide opportunities for UMW students studying communication, the social science aspects of Environmental Science, and Education to engage the public through creative science communication and exhibits in the RIVERE Center and botanical gardens.
- RIVERE's facilitation of efforts to develop and implement the SmartRiver concept on the Rappahannock can provide opportunities for students in Computer Science, Environmental Science, and Geology to gain experience with applied research on emerging technologies in water research, as well as applied Artificial Intelligence, machine learning, data assurance, and cyberbiosecurity.

Importantly, these opportunities can provide local, easily accessible ways in which UMW undergraduate students can interact with scientists from government agencies, non-profit organizations, and research institutions such as Virginia Tech. These hands-on experiences can create potential avenues into graduate school and professional job opportunities through personal connections with professionals using the short-term office, accommodations, indoor and outdoor resources provided at RIVERE.

Our science researchers, both faculty and students, have already benefited from the support provided by the RIVERE team to examine microplastics and surface water runoff. I look forward to continuing and expanding upon UMW's collaboration with RIVERESM to bring the ecological center, botanical gardens, and SmartRiver concept to Virginia!

Sincerely,



Dr. Keith E. Mellinger, Dean
College of Arts and Sciences

University of Mary Washington

Office of the President

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Fredericksburg, VA 22401-5300

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July 26, 2022

RIVERESM Ecological Center
4730 Wallace Lane
Fredericksburg, VA 22408

Dear RIVERESM Leadership Team:

On behalf of the University of Mary Washington (UMW), I am pleased to express our support for RIVERESM and the vision to create an ecological center on the Rappahannock River in Stafford County. I see many exciting opportunities for a collaboration between UMW and RIVERESM in support of environmental research and education. Located in Fredericksburg between our nation's capital and the capital of the Commonwealth of Virginia, UMW is a nexus for engagement among diverse communities and is dedicated to supporting professional advancement and economic development and to improving the regional quality of life. The UMW mission is to provide a superior education that inspires and enables our students to make positive changes in the world. The creation of the RIVERESM Center on the Rappahannock in Stafford County will complement and support UMW's mission.

We are pleased with Buck Cox's recent acquisition of UMW's 14.5-acre property adjacent to the Duff McDuff Green Park in Stafford County, with his intention to donate the land to RIVERESM upon successful fundraising. Mr. Green donated this property to UMW with a desire to promote outdoor activities and support UMW's crew team practice. He envisioned the adjacent 60-acre property, which he donated to Stafford County, as a space where children can spend time outdoors. Using this land as a home to the RIVERESM Center and its native botanical gardens will honor Mr. Green's vision, particularly given RIVERE's plan to collaborate with the American Canoe Association and create walking trails where people can enjoy time outdoors.

We look forward to building upon the support and learning opportunities that RIVERESM has already provided UMW students and researchers. RIVERESM coordinated and financially supported an alliance with UMW, Virginia Cooperative Extension and Virginia Tech to assess runoff water within the City of Fredericksburg. RIVERESM also provided experiential learning opportunities by having UMW business students research key elements for the RIVERESM business plan. Moving forward, we envision a collaboration between the UMW Jepson Science Center and the RIVERESM Center as an exciting opportunity to complement and expand undergraduate research and experiential learning for UMW students. The RIVERESM Center can expand UMW's undergraduate research to include access to field-based research in the "living laboratory" botanical gardens and SmartRiver initiative on the Rappahannock in conjunction with scientists from research institutions such as Virginia Tech.

I look forward to continuing and expanding upon UMW's collaboration with RIVERESM to bring the ecological center, botanical gardens and SmartRiver concept to Stafford County!

Sincerely,



Troy D. Paino, J.D., Ph.D.
President

SMITHGROUP

June 13, 2022

Mikel Ann Manchester, M.S., CBLP
Executive Director of Operations – RIVERE
4730 Wallace Lane
Fredericksburg, VA 22408
Re In support of RIVERE

Dear Mikel,

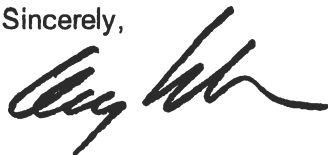
SmithGroup's mission is to create a legacy of inspiring places that enhance the environment and enrich the human spirit. We design sustainable solutions to create a healthy and prosperous future for our clients and communities, balancing the needs of a flourishing society, economy, and environment. We are excited by RIVERE'S vision to create a world-class ecological center designed in form and function to attract, support, and integrate scientific research into conservation, education, and public outreach. Your vision aligns with ours and we actively seek opportunities to partner with those with parallel mission and goals. Together, we can help to translate your vision into a reality.

Our vision for the RIVERE building and site is to create a world-class, regenerative design. Regenerative design aspires to go beyond doing less harm, instead creating solutions that repair natural and human systems. LEED, even LEED Platinum, is ultimately focused on reducing environmental harm. But regenerative design seeks to create restorative, net-positive impacts that result in improved social and environmental conditions. A regenerative design meets or exceeds its entire energy use through on-site renewable energy sources, meets or exceeds its entire water demand through captured rainwater/ wastewater, treats all wastewater on site, sequesters carbon, enhances human health, and creates or restores habitats and local ecology. Regenerative buildings not only repair our balance with nature, but they in turn also become a natural ecosystem, a living thing.

We have authored regenerative designs, most notably the Chesapeake Bay Foundation's Brock Environmental Center in Virginia Beach, Virginia. The Center achieved net zero energy and carbon, net-zero water and waste, as well as Living Building Challenge certification from the International Living Future Institute. Our design process was marked by collaboration with community partners and the City of Virginia Beach. Monthly stakeholder meetings were instrumental to forge a shared vision for the 122-acre site, while a close relationship with the City's regulatory agencies acted to catalyze the city to adopt more sustainable practices including permeable paving, on-site waste treatment, and reduced parking requirements.

The design of the Brock Center was a once-in-a-lifetime opportunity, which is why I am excited about the prospect of engaging in the design of the RIVERE Center – hopefully a twice-in-a-lifetime opportunity.

Sincerely,



Greg Mella, FAIA LEED AP BD&C
Vice President | Director of Sustainable Design



Virginia Tech • Virginia State University

Virginia Cooperative Extension

Northern District Office

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540-232-6015 Fax: 540-432-6251

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www.ext.vt.edu

June 6, 2022

Stafford County Finance Committee

Dear Committee,

On behalf of Virginia Cooperative Extension, I am pleased to offer our support for the efforts of RIVERESM, bringing an ecological center to Stafford County. As facilitators RIVERESM is working to promote research, education, technology, and ecoculture on the Rappahannock River and improve water quality for the Chesapeake Bay watershed. The proposed Native Botanical Gardens will restore native habitats, improve soil quality by reducing agricultural inputs, and promote ecological education for the region.

Virginia Cooperative Extension has an existing network of facilities (107 city and county unit offices, 11 Agricultural Research and Extension Centers, six 4-H centers and two university campuses and satellites), professional extension staff, and university specialists to deliver vital educational programs to the public. VCE-Stafford is your local and direct link to this system. This network is enhanced by a connection to the resources of the land grant universities across the nation and is already located in every county and major city in the state. This project provides the opportunity for collaboration through multiple sources to improve water quality, habitats and human health.

VCE is the educational outreach program of Virginia's land-grant universities: Virginia Tech and Virginia State University, and a part of the National Institute for Food and Agriculture, an agency of the United States Department of Agriculture. We are committed to: providing access to unbiased, scientific information related to locally defined issues, building a presence in local communities, establishing strong partnerships, collaborative coalitions, and innovative service to the Commonwealth of Virginia.

Interested in engaging the public, the Agriculture and Natural Resources program area of VCE is focusing efforts to protect environmental resources such as the Rappahannock River. One way is through offering opportunities for volunteers to do hands on work in the proposed Native Botanical Garden adjacent to the location of the RIVERESM Ecological Center. Additional benefits to this project include increasing public awareness about native botanicals, reducing agricultural chemical inputs, and promoting Best Management Practices with display gardens that provide hands on exhibits for home landscape installation.

We support the related efforts of RIVERESM, on the Rappahannock River and will offer technical assistance as needed for project outcomes of this anticipated Native Botanical Gardens that will benefit Stafford County and the region. Virginia Cooperative Extension looks forward to community outreach contributions, as well as participation in this proposed environmental education opportunity. We thank you for the years of financial support you have provided in partnership in VCE-Stafford Unit office. Though RIVERESM VCE-Stafford are not directly linked financially, these two programmatic efforts have a shared mission of service to Stafford County residents, and bringing educational programming to Virginia residents. Feel free to contact me should you have any questions or concerns about either of these programming efforts and their financial situations.

Extension is a joint program of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and state and local governments. employer

Virginia Cooperative Extension is a partnership of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and local governments. Its programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, military status, or any other basis protected by law.

Sincerely,

A handwritten signature in black ink, appearing to read "John G. Thompson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

John G. Thompson
Northern District Director
Virginia Cooperative Extension



Chesapeake Bay Governor's School for Marine and Environmental Science

202 South Church Lane; Mailing Address: P.O. Box 1410

Tappahannock, Virginia 22560

Telephone: (804) 443-0267; Fax: (804) 443-4039

Email: jstrong@cbgs.k12.va.us

Dr. Jason Strong, Director

August 10, 2022

Dear RIVERESM Leadership Team:

My name is Dr. Kevin Goff, science instructor at the Bowling Green campus of *The Chesapeake Bay Governor's School for Marine and Environmental Science*. I've taught locally for 3 decades and hold a Master's in Marine Science (VIMS, 2002) and a Ph.D. in science education (William & Mary, 2017). I am pleased to express CBGS's support for RIVERESM. We are excited by your vision to create an ecological center in Stafford County that parallels our own mission by promoting research, education, technology, and ecoculture on the Rappahannock River and within The Chesapeake Bay Watershed. We envision numerous opportunities for potential collaboration with any of our 3 campus locations.

CBGS is a math and science program specially designed for students of high academic ability from 14 public high schools in the Northern Neck and Middle Peninsula – half of them flanking the Rappahannock River. We provide students with a rigorous curriculum through enrichment, exploratory, investigative, and career awareness experiences. Through the integration of math, science, technology, and research, woven with marine and environmental sciences, students have the opportunity to grow an appreciation and respect for environmental issues both local and global. During their 3 years at CBGS, students enjoy a series of rich field experiences, from the Chesapeake's headwaters in the Appalachian highlands to its tidal waters in the coastal lowlands – many of them on Rappahannock tributaries and wetlands. Our environmental science curriculum strongly emphasizes scientific process and student-driven inquiry, and all students conduct sophisticated independent research of their own design. Students also collect Tier 1 water quality data from local tributaries for the Virginia Department of Environmental Quality, and many of our students earn special recognition at graduation for completing 60 or more hours of environmental service. All of our courses carry college credit through Rappahannock Community College.

The CBGS is eager to support RIVERESM as a potential partner for collaboration with educational outreach programs, internships, and student research, and as a potential site location for CBGS student citizen science experiences. We look forward to the opportunity to partner with RIVERESM!

Sincerely,

Dr. Kevin Goff



September 2, 2022

Dear Rivere Leadership Team

Tree Fredericksburg is excited to endorse this exciting new organization that will support and promote research, education, technology, and the ecoculture of the Rappahannock River and the importance of our region. Doing this in collaboration with Patawomeck Tribe, Friends of the Rappahannock, and Virginia Cooperative Extension makes this project even more important. Creating an ecotourism destination in this area that will attract local and global visitor is something that many of us have been anticipating for many years.

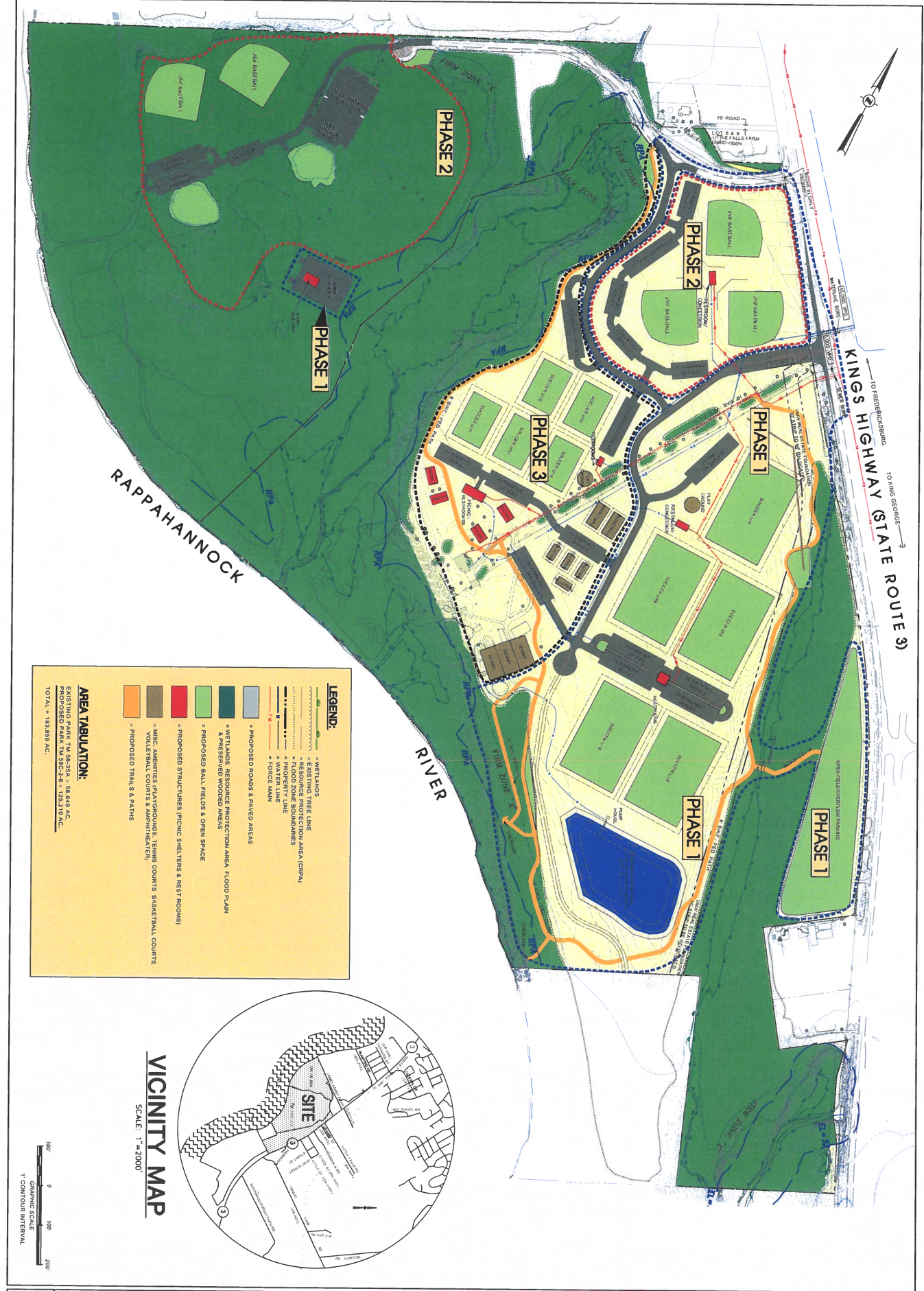
Some of the benefits for our region include:

- The installation of a botanical garden modeled on Lewis Ginter Botanical Gardens (391,000 visitors during the pandemic) that will boost tourism in Stafford.
- The introduction of the first complete SmartRiver concept in Virginia, to help mitigate impacts to the Rappahannock River.
- The ability for the environmental community to coalesce around this center and create important partnerships throughout the region and the state.

Tree Fredericksburg will be happy to work with all of the partners involved and add our support and volunteers to this project. Congratulations and best wishes for this exciting project.

Yours truly

Anne Little
Executive Director
Tree Fredericksburg



DUFF MCDUFF MEMORIAL PARK
 GEORGE WASHINGTON MAGISTERIAL DISTRICT
 STAFFORD COUNTY, VIRGINIA

OVERALL LAYOUT

SDI SULLIVAN
 DONAHOE &
 INGALLS

ENGINEERS, LAND PLANNERS & SURVEYORS
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 10720 COLUMBIA DRIVE
 FREDERICKSBURG, VIRGINIA 22404
 TELEPHONE: 540-896-5878

DATE	REVISIONS

SHEET
1
 OF
1
 SHEETS

October 2022 Staff Reports

For November 17, 2022, Parks and Recreation Commission Meeting

Community Recreation, 55+ Active Adults, & Aquatics

- Classes/Activities held
 - Happy Trails at Mott's Run Reservoir and Burke Lake Park Loop
 - CPR Class
 - Fall Festival and 10th Annual Pumpkin Derby; 10/8 at Pratt Park
 - Stafford Steppers performed at Belmont-Ferry Farm Trail & Italian Station; 10/18
 - Multi-Cultural Day; 10/22
- Coming Up
 - New River Dance classes
 - Intermediate/Advanced Ballet classes
 - CyberTeck Academy Coding and Game Design with Scratch
 - Painting without Brushes; 11/2 and 11/9
 - Elegant Jeweled Pinecone Christmas Crafts; 11/15
 - Richmond, VA, Trip; 11/21
 - Santa Wreath Making Class; 55+; 11/29

Gymnastics

- Classes/Activities Offered/held
 - 10 birthday parties
 - Offered 12 Tot Open Gym sessions
 - Boys Team attended Virginia Men's Gymnastics State Meeting and Clinic
 - Preschool Program Special Event – Costume Party
- Upcoming
 - 7 birthday parties are scheduled
 - Boys' Team will compete in Woodbridge, VA, at the Apollo Survival Invitational
 - Upper Levels of Girls' Team will compete in York, PA @ the Tim Weaver Battlefield Invitational





Parks

- Brooks Park District
 - Painted speed bumps and parking blocks at Brooks
 - Cut back tree line at Melchers and Brooks basketball court
 - Replaced basketball nets at Brooks
 - Removed grills and picnic tables from disc golf course at Pratt
 - Purchased and installed new salt/sander for snow removal
- Chichester Park District
 - Installed replacement swings and chains for playground
 - Mowed and trimmed retention ponds at Chichester
 - Assisted with walkway repairs at Government Island/Aquia Harbor
 - Moved balance beams and mats at SGRC
 - Cut and fit carpet bonded foam at SGRC
 - Began planning for setup of the 2023 Make-a-Wish gymnastics meet
- Curtis Park District
 - Prepped for Fall Festival and helped with pumpkin race
 - Contractors repaired and refurbished the water tank
 - Painted restrooms
 - Repaired boardwalks, wooden deck boards, and added gravel to improve transitions from trail to boardwalk
 - Brush cut Glendy Tower and Mooney Model Rocket launch site
 - Updated maps on Disc Course and park Kiosk
 - Replaced old wooden steps with stone on disc course hole 13



- Duff Park District
 - New front gate installed @ Duff
 - Removed buoys for the winter and installed UV system to treat water @ Aquia Landing
 - Removed downed trees from trails @ Civil War Park
- Embrey Mill Park District
 - Cleaned Mine Rd
 - Took down canopies, removed starting blocks and Handicap lift at Woodlands Pool
 - Added lighting to equipment shed
 - Made repairs to athletic field lights
 - Prepared for WAGS tournament

- Smith Lake Park District
 - Hosted WAGS Tournament
 - Staff helped with Fall Festival
 - Repaired tears on artificial fields
 - Repaired bridge at Government Island
 - Assisted Marketing Division with job fair and park kiosks
- Willowmere Park District
 - De-weeded AG Wright softball field
 - Removed and replaced 60 aerator tines
 - Painted trash cans from Curtis park
 - Put salt spreader on truck
 - Prepped cross-country running path for District finals

Sports and Facilities

- Stafford Parks & Rec Night – 10/12; volleyball coaches and players were invited to attend the UMW vs Southern Virginia volleyball game



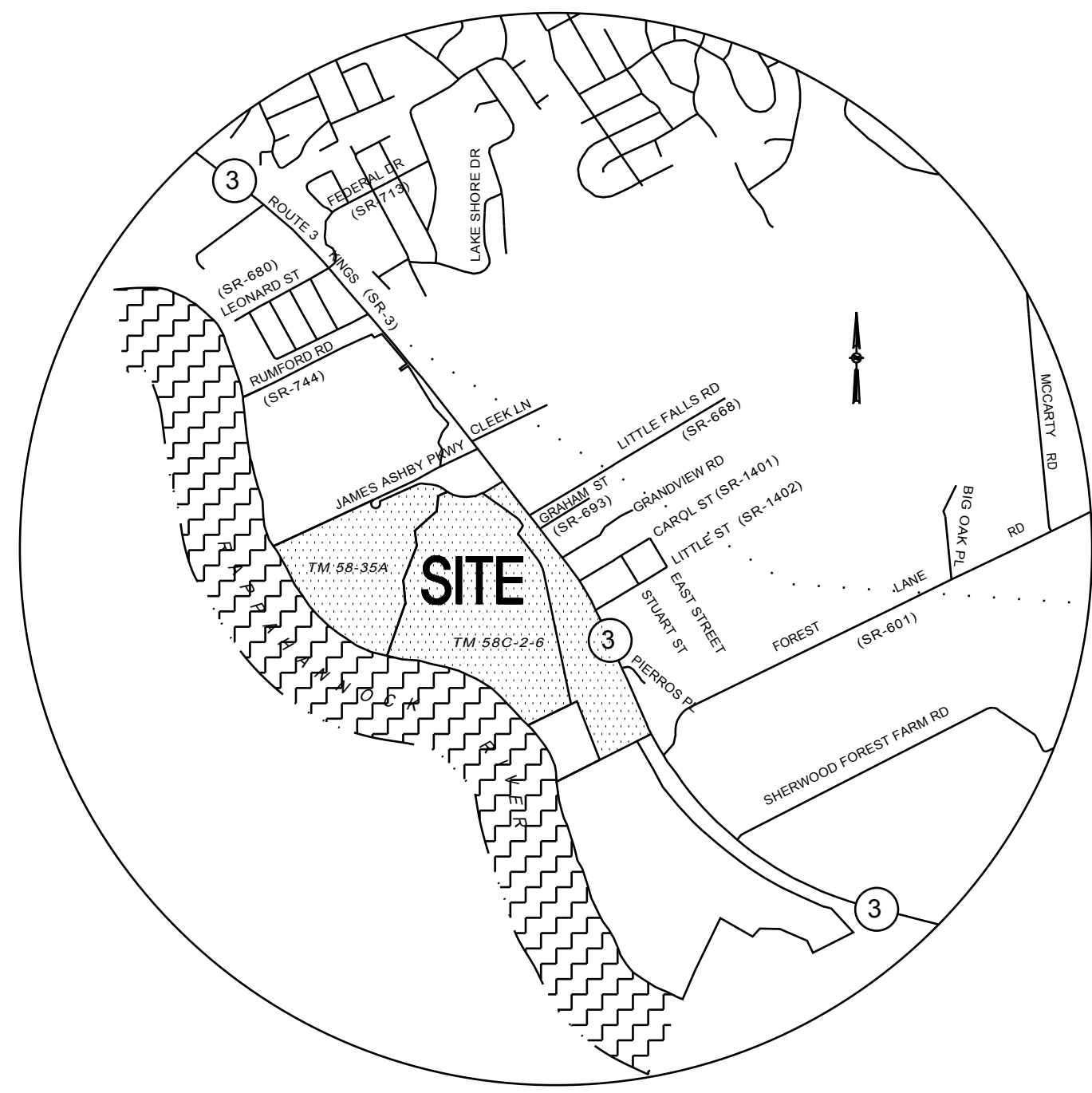
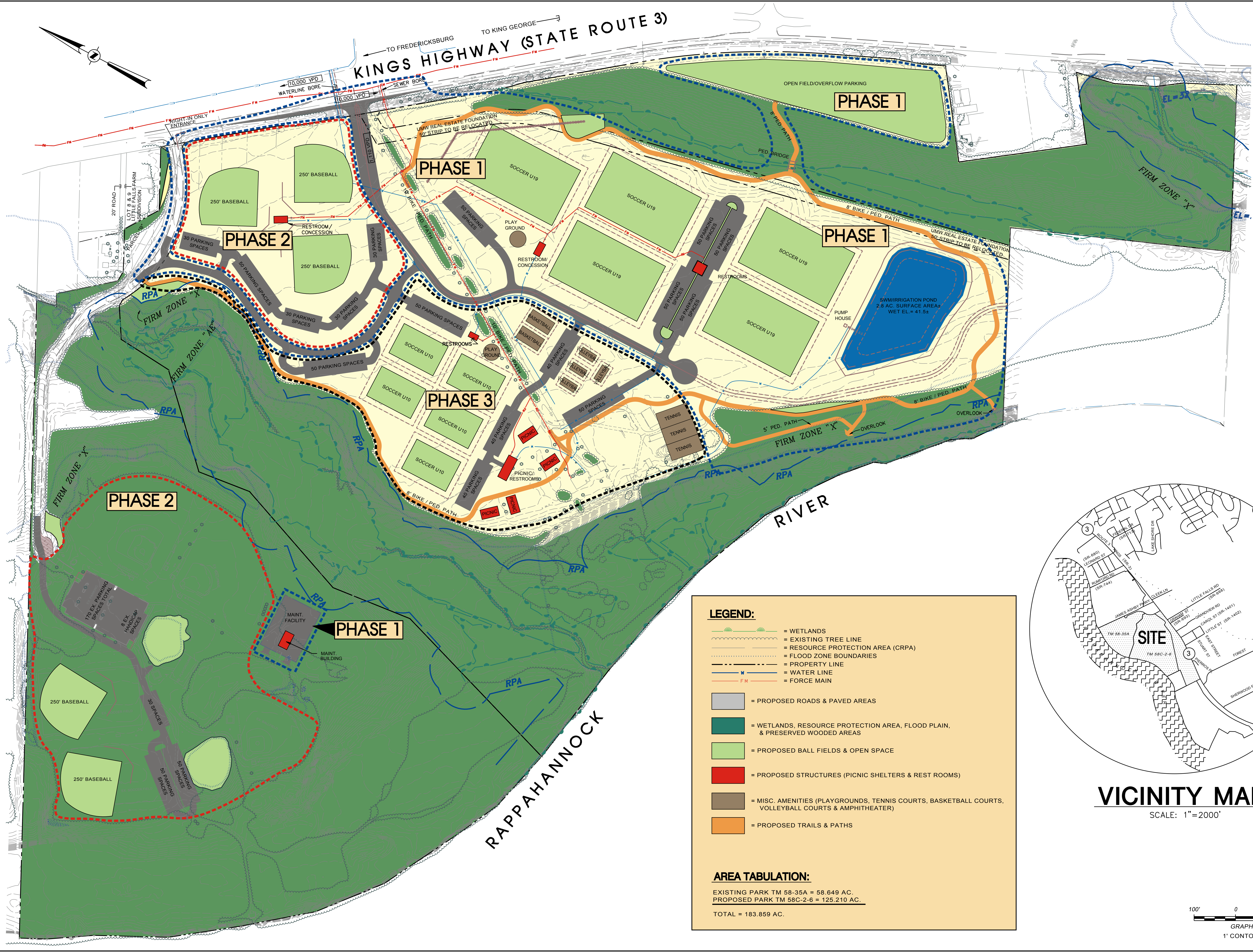
- Black Light Fright Night – 10/26 – Halloween Glow Program; 51 participants



- P&R coaches, NFL Flag players and sideline cheerleaders were invited to run onto the field prior to kickoff @ the Colonial Forge Football versus Brooke Point football game; 10/28



P:\Active Jobs\SCPR Duff Green Park Base Mapping 12-ST-0127\CADD\Concept\COLOR-Duff Green Concept Final.pro
JN:project info - SDI PROTOTYPE PROJECT
Last Plotted: Tue Jul 23 11:16:07 2013



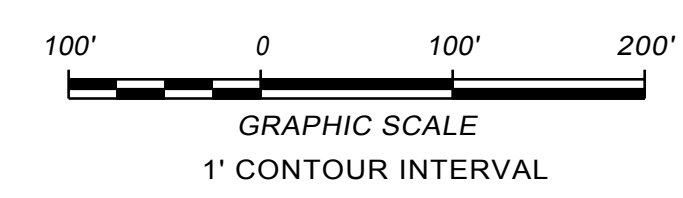
VICINITY MAP
SCALE: 1"=2000'

LEGEND:

- [Symbol] = WETLANDS
- [Symbol] = EXISTING TREE LINE
- [Symbol] = RESOURCE PROTECTION AREA (CRPA)
- [Symbol] = FLOOD ZONE BOUNDARIES
- [Symbol] = PROPERTY LINE
- [Symbol] = WATER LINE
- [Symbol] = FORCE MAIN
- [Symbol] = PROPOSED ROADS & PAVED AREAS
- [Symbol] = WETLANDS, RESOURCE PROTECTION AREA, FLOOD PLAIN, & PRESERVED WOODED AREAS
- [Symbol] = PROPOSED BALL FIELDS & OPEN SPACE
- [Symbol] = PROPOSED STRUCTURES (PICNIC SHELTERS & REST ROOMS)
- [Symbol] = MISC. AMENITIES (PLAYGROUNDS, TENNIS COURTS, BASKETBALL COURTS, VOLLEYBALL COURTS & AMPHITHEATER)
- [Symbol] = PROPOSED TRAILS & PATHS

AREA TABULATION:

EXISTING PARK TM 58-35A = 58.649 AC.
PROPOSED PARK TM 58C-2-6 = 125.210 AC.
TOTAL = 183.859 AC.



REVISIONS	
DATE	

ENGINEERS, LAND PLANNERS & SURVEYORS
P. O. BOX 614
10720 COLUMBIA DRIVE
FREDERICKSBURG, VIRGINIA 22404
TELEPHONE 540-898-5878

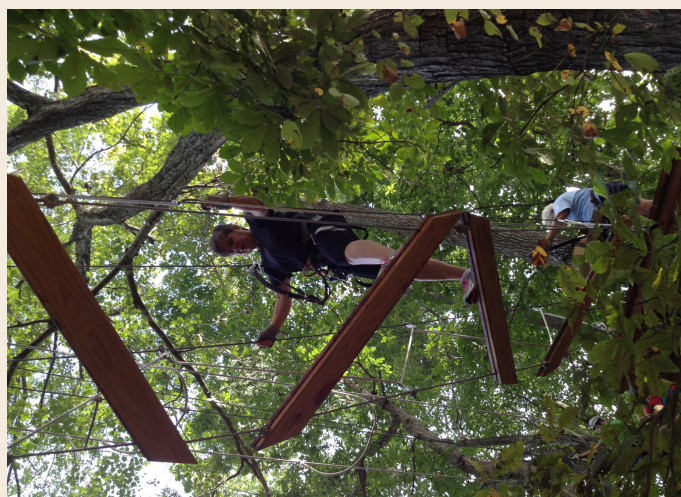
SDI
SULLIVAN
DONAHOE &
INGALLS

DUFF MCDUFF MEMORIAL PARK
GEORGE WASHINGTON MAGISTERIAL DISTRICT
STAFFORD COUNTY, VIRGINIA

OVERALL LAYOUT

DES.	SDI
DRAWN	SDI
APP	SDI
JOB NO.	12ST-0127
DATE	06-09-13
SCALE	1"=100'

SHEET **1**
OF **1** SHEETS



**Stafford County, Virginia
Parks, Recreation, and Community Facilities Department
Parks Utilization Plan (Phase II)
January 2017**



Acknowledgements

Board of Supervisors

Paul Milde, Chairman
Meg Bohmke, Vice Chairman
Jack R. Cavalier
Wendy Maurer
Laura A. Sellers
Gary F. Snellings
Robert 'Bob' Thomas, Jr.

Administration

Thomas Foley, County Administrator
Michael Smith, Deputy County Administrator

Parks and Recreation Commission

Todd Heap, Chairman
Eric Herr, Vice Chairman
Roy Boswell
Raymond Jackson Jr.
Paula Williams
Michelle Woodaman

Parks, Recreation and Community Facilities Staff

Michael Morris, Director
Brion Southall, Assistant Director
Derrick Carr, Recreation Administrator
Chris Stevens, Parks Superintendent

Consultant Team

GreenPlay, LLC
Design Concepts

*For more information about this document, contact GreenPlay, LLC
At: 1021 E. South Boulder Road, Suite N, Louisville, Colorado 80027, Telephone: 303-439-8369
Toll Free: 866-849-9959 Email: info@greenplayllc.com www.greenplayllc.com*

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Executive Summary

Stafford County, Virginia, is strategically located along the I-95 corridor between the State Capital of Richmond to the south and the Nation's Capital, Washington, D.C. to the north. The area served important roles in the forming of our nation and has continued to be an important and pivotal community. The location in such a dynamic area has encouraged rapid growth and increased diversity of interests.



In order to position the County's Parks, Recreation, and Community Facilities (PRCF) Department to address the current need and growth and to accommodate future growth, the County commissioned a series of Parks Utilization Assessments to examine the status of current facilities and program offerings as well as to help guide the future direction of park development and acquisition, and address recreational programming trends. Additionally, organizational practices and structure were examined with guidance provided to best position the County and the PRCF to serve emerging needs of a growing and changing citizenry.

The Phase I assessment of the athletic fields of the County was completed in 2014. In this Phase, the remainder of the parks, facilities, and program offerings of PRCF have been analyzed. The goal of the study was to assist in guiding PRCF staff, Parks and Recreation Commission Members, County Administration, and the County Board of Supervisors in making decisions regarding the continued development and enhancement of Stafford's parks, open space, trails, and recreation facilities. It also addresses recreational programming services and special events.

Outcomes include a comprehensive inventory of existing facilities and infrastructure, an analysis of needs based on population and demographic projections, trends in programming and facilities, and recommended implementation strategies.

Project Objectives

The following objectives emerged from the planning process for this project:

- Review demographic trends as related to the future of Stafford County's parks, open space, trails, and recreation.
- Develop a comprehensive inventory of existing parks, open space, and recreation facilities and measure current levels of service provided by these amenities.
- Determine citizen needs, interests, and customer satisfaction in Stafford County through a public process including community meetings, an internet-based opportunity for comment, and interviews with stakeholders.
- Make recommendations for the development and operation of the County's parks, open space, trails, and recreation system to address current and future needs.

Process

A PRCF project team made up of department staff has guided this project. This team provided input to the GreenPlay consulting team throughout the process. This collaborative effort created a document that fully utilized the consultant's expertise and incorporates the local knowledge and institutional history that only community members could provide.

As was the case in Phase I, it was important to engage the public users of the facilities and programs as well as County staff with sufficient and meaningful knowledge that would allow for frank and open discussions about the current state and the future of parks, programs, and related amenities. A public engagement process was undertaken in January 2015 to gain valuable insight into the needs and desires of the community. Face-to-face meetings were held with groups and individuals that utilize the parks and programs of Stafford County as well as internet outreach to potentially reach citizens who do not currently participate in the offerings of PRCF.

In addition to public engagement, the consultant team gathered information from a variety of sources including previous comprehensive and strategic plans, capital and operating budgets, and departmental data such as registration information. A major feature of the information gathering was an extensive on-site inventory of the facilities of the department to assess the condition of the physical inventory and how well that inventory serves the current and expected residents of Stafford County. The consultant team then analyzed the compiled information, identifying citizen needs and desires. A Level of Service Analysis was performed, identifying a target level of service that is both feasible and aligned with county demographics and the desires of citizens as expressed through accumulated citizen input.

Demographics

Esri Business Information Solutions, based on the U.S. Census, was the source of much of the demographic data provided in this section. The Weldon-Cooper Center for Public Service at the University of Virginia provided more specific county-based data. The Weldon-Cooper Demographics Research Group produces the official annual population estimates for Virginia and its localities. A summary of demographic highlights is followed by more detailed demographic information.

Summary

Key demographic trends for parks and recreation planning efforts in Stafford County are summarized below.

- According to Esri Business Information Solutions (based on the 2010 U.S. Census), the estimated median household income for Stafford residents was \$97,110.
- The median age for the County is 35.0, lower than the median age (37.1) for the United States.
- The gender distribution in 2014 was 50.2 percent male to 49.8 percent female.
- Population increased 7 percent between 2010 and 2014.
- Total population growth is projected to increase 18.6 percent from 140,176 in 2015 to 178,152 in 2020

Public Input

A series of six focus group meetings were held on January 6th and 7th, 2015, with interested individuals participating throughout the two days. Representatives from the Department were also present in the sessions. In addition, the questions asked of the attendees were also posted on the Department's web site, and comments were encouraged. Responses from this online process were included in the community input information for this project.

The questions posed both to participants of the focus group meetings as well as on the web site were as follows:

- How long have you been a resident of Stafford County?
- What are the strengths of the Parks, Recreation, and Community Facilities Department that should be continued over the next several years?
- Conversely, what are the major weaknesses that need to be addressed through the Parks Utilization Assessment?
- How satisfied are you with the quality of current programs offered? Why?
- What additional programs or activities do you feel the Department should offer that are not currently available?
- How satisfied are you with the overall quality of the existing park and recreation parks and facilities provided by the Stafford County Parks, Recreation, and Community Facilities Department? Why?
- How would you rate the overall level of maintenance at the parks and facilities owned or operated by the Department? Please identify the location and specifics of any maintenance concerns.
- What improvements are needed at existing parks and facilities? Where are these improvements needed?
- Are there any portions of the community that are underserved? Please explain (i.e., where and what type of amenities are needed, what market segment needs more attention, etc.).
- What additional park and recreation facilities would you like to see the community provide?
- Are there any parks, facilities, and/or programs currently available that should be eliminated? If so, which ones and why?
- How would you rate the quality of customer service provided by the Parks, Recreation & Community Facilities staff? Please elaborate.
- How effective is the Department in seeking feedback from the community and users on improving its performance?
- How do you believe the Parks and Recreation Department should be financially supported? Should it be self-supported through user fees, completely through taxes, alternative funding, or a combination of each? Please elaborate.
- Do you think residents would be supportive of a tax increase to support the development and/or maintenance of parks and facilities? What other ways should be explored to fund your vision?
- Who are the key partners and stakeholders in the community that could assist with the implementation of this plan?
- What are the key issues and values in the community that need to be considered while developing this Park Utilization Assessment?
- Are there any political sensitivities we should be aware of that could impact the success of the County's planning efforts?

- During the next 5-10 years, what are the top priorities for the Parks, Recreation, and Community Facilities Department?

The following is an overview of the Stafford County community feedback regarding strengths, weaknesses, opportunities, and visions for the future of PRCF:

- Overall, the citizens expressed satisfaction with customer service and the quality of the program offerings, with slightly lower satisfaction with the quality of the parks and citizen engagement.
- Participants identified the caring and professional staff and a variety of programs for all ages as strengths. Weaknesses were pointed out in the area of old and outdated park and facility offerings, most notably the Gymnastic Center. There was a strongly stated desire to replace it with a more modern facility capable of meeting the needs of this very successful program. There was a general consensus to update and enhance the Department's parks and facility offerings with improved restrooms, shade, parking, lighting, and other amenities.
- A lack of non-sports programming was mentioned by a number of the citizen participants.
- Citizens of the County with special needs were noted as an underserved population.
- Several new programming ideas were suggested reflecting the diverse desires of a growing population with equally diverse interests. Included were enrichment programs in culture, music, and arts programs for children and adults; life skills, such as cooking; summer job know-how; dance; and other non-sports programming.
- There was general agreement that operations should be funded much as they are currently. Participants stated that the programs should remain affordable.
- There was consensus for assisting those participants without the financial means to participate.
- Based on the wealth of the County, increased financial support for the programs and facilities of PRCF, Focus Groups agreed with the following statement: Yes, I would support increased financial support for parks.

Suggested Areas of Focus

Programs and Service Delivery

- Provide inclusion and adaptive programming for citizens with special needs.
- Increase teen programming emphasis and outreach.
- Increase enrichment programming for children and adults.
- Increase programming to promote health and wellness including the encouragement of walking and bicycling.
- Increase non-sports programming.
- Consider Youth Sports Entry Programming such as Quick Start Tennis and 1st Tee Golf.
- Align programming with demographics of the County.
- Review scheduling methodologies to improve traffic turnover and congestion.
- Determine appropriate locations for maintenance facilities to support parks and adjacent off - site school fields.



Facilities:**Existing Facilities**

- Continue to improve level of service through upgrades or additional components.
- Improve availability of shade near park amenities.
- Continue improving ADA accessibility at all facilities.
- Add/improve security and parking lighting.
- Enhance walking/biking opportunities to access parks.
- Create an individual identity for each park.
- Recognize that the park system is a regional park model, with neighborhoods being served by alternate providers such as schools and HOAs.

New Facilities or Major Capital Renovations

- Replace the Gymnastics Center.
- Provide additional indoor programming.
- Increase the number and distribution of basketball opportunities, indoors and outdoors, throughout the County.
- Provide additional picnic pavilions for rentals.
- Add dog parks throughout the County.
- Examine opportunities for trail connectivity to facilities and parks to improve walkability.

Finance

- Examine the process for user fees and assessment fee standards.
- Implement a preventive maintenance and lifecycle replacement schedule for physical assets.
- Consider a bond issue for capital improvements.
- Seek additional partnerships, sponsorships, grants, and donations.
- Consider establishing a Foundation to receive and administer donations and sponsorships.

Organizational

- Improve marketing of programs, activities, and events.
- Assign Therapeutic Recreation responsibilities to a single position.
- Assign responsibility for Partnerships/Sponsorships/Grants/Donations.
- Update and improve the operating relationship with the schools.
- Improve staff training.

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I. Past, Present and Future - The Planning Context

Purpose of this Assessment

The Stafford Parks, Recreation, and Community Facilities Park Utilization Assessment is intended to help meet the needs of current and future residents by positioning Stafford County to build on the community's unique parks and recreation assets and identify new opportunities. The citizen-driven plan establishes a clear direction to guide County staff, advisory committees, and elected officials in their efforts to enhance the community's parks and recreation services and facilities. This is the second phase of parks assessment, with phase I concentrating on the distribution and use of athletic fields in the county. Phase I was completed in 2014.



Stafford County Parks, Recreation and Community Facilities Department Mission Statement

"Our mission is to offer affordable leisure, recreational, and sports programs for all citizens to improve social, mental, and physical development and to provide cost effective, year-round management and maintenance of the County's parks, public buildings, and other facilities."

Parks and Recreation Department Overview

Stafford County is located in an area of scenic beauty and historical significance. The County's Parks, Recreation, and Community Facilities Department (PRCF) is a source of community pride and is responsible for the many parks, community and recreation facilities, and programs and events that are important factors in the quality of life in the community.

The 22 parks and 31 schools providing outdoor facilities; the 9 community facilities, including libraries and 10 schools for indoor activities and an 18-hole golf course, comprise the basis for an outstanding park system. The Parks, Recreation, and Community Facilities Department hosts and co-hosts a number of special events including the recently concluded year-long celebration of the County's 350th anniversary.

For a county that has experienced rapid growth (approximately 50% since 2000) and with an estimated 138,230 current residents, a park system of this magnitude is a massive accomplishment as well as a tremendous responsibility. It should be recognized that such a period of rapid growth, and continued growth, has challenged the County and PRCF to keep up with increasing demands.

Related Planning Efforts and Integration

Several documents provided background for this Utilization Assessment including:

- 2010 – 2030 Stafford County Comprehensive Plan
- Efficiency Study of Stafford County Public Schools March 2015
- Budgets:
 - 2015 Adopted Budget
 - 2014 – 2023 Capital Improvement Program
- Parks Utilization Assessment Phase I (Athletic Fields) May 2014
- Numerous departmental documents including Policies, Procedures, Registration Reports, etc.

These documents were reviewed by the consultant team and have been integrated into the recommendations of this Parks Utilization Assessment, where applicable, to ensure consistency with these existing planning efforts.

Methodology of this Assessment Process

A PRCF project team made up of Department staff has guided this project. This team provided input to the GreenPlay consulting team throughout the process. This collaborative effort creates a document that fully utilizes the consultant's expertise and incorporates the local knowledge and institutional history that only community members can provide. The project consisted of the following tasks:

Community Engagement

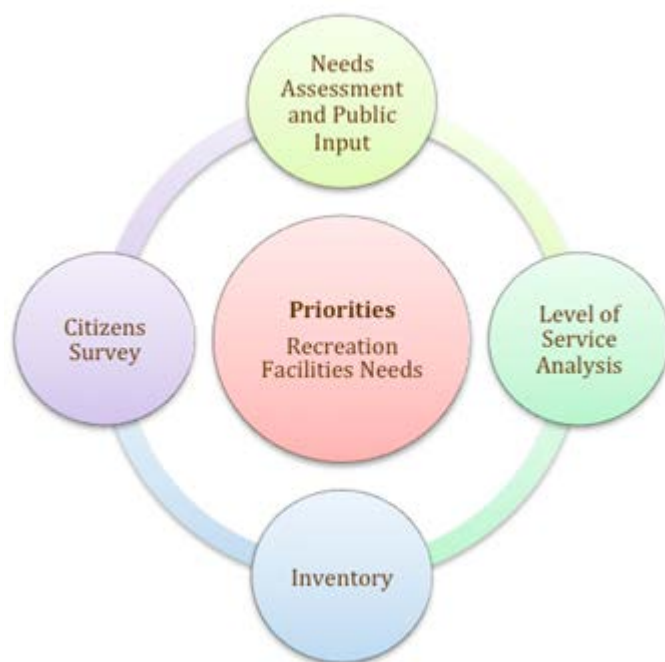
- Review of previous planning efforts, county historical information.
- Extensive community involvement effort including focus groups, meetings with key stakeholders, and community-wide public meetings.

Facility Inventory

- Inventory of parks and facilities using existing mapping, staff interviews, and on-site visits to verify amenities and assess the condition of the facilities and surrounding areas.

GRASP® Level of Service Analysis

- Interviews with staff to provide information about parks and recreation facilities and services, along with insight regarding the current practices and experiences of the County in serving its residents and visitors.
- Identification of alternative providers of recreation services to provide insight regarding the market opportunities in the area for potential new facilities and services.
- Analysis addressing recreation, parks, cultural affairs, and related services.



Assessment and Analysis

- Review and assessment of relevant plans.
- Measurement of the current delivery of service for parks and recreation facilities using the GRASP® Level of Service Analysis and allowing for a target level of service to be determined that is both feasible and aligned with the desires of citizens as expressed through the citizen input. This analysis is also represented graphically in GRASP® Perspectives.
- Exploration of finance and funding mechanisms to support development and sustainability within the system.

Needs Assessment

- Consideration of the profile of the community and demographics, including population growth.
- Research of trends related to American lifestyles to help guide planning efforts of PRCF.

Operational and Marketing Analysis

- Analysis of PRCF programming and service delivery.
- Facilitation of an organizational SWOT analysis.
- Broad assessment of the overall PRCF operations.

Recommendations: Goals and Objectives

- Identification and categorization of recommendations into themes with goals and objectives, and a suggested action plan for implementation.

Timeline for Completing the Assessment

Start-up	December, 2014
Community Engagement	January – March, 2015
Inventory and Assessment of Existing Facilities	January – March, 2015
GRASP® Level of Service Analysis	February – March, 2015
Needs Assessment	February, 2015
Operational Analysis	February, 2015
Findings Compilation Report	April 2015
Recommendations	April – May 2015
Final Presentation and Deliverables	February 2017

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II. Identified Community Needs

Identification of current park and recreation resources, as well as recreation trends, community demographics, and needs, provides a framework to better understand future recreational opportunities and identify the unique niche of Stafford County. The demonstrated values and standards that the Parks, Recreation, and Community Facilities Department brings to the community, along with park and recreation trends, work together to create a unique opportunity for Stafford County to plan and implement for future park and recreation facilities.

Following is an overview of the Stafford County community and a needs assessment of park and recreation facilities and services. This section first describes the key demographic information as well as national trends in parks and recreation services. Community input from focus groups and community meetings is described and identifies satisfaction levels along with public needs for Stafford's park and recreation facilities and services.

Stafford County Population and Demographic Trends

Stafford County, Virginia, is strategically located along the I-95 corridor between the State Capital of Richmond to the south and the Nation's Capital, Washington, D.C. to the north. The area served important roles in the forming of our nation and has continued to be an important and pivotal community. The location in such a dynamic area has encouraged rapid growth and increased diversity of interests.



A significant portion of far northern Stafford County is the home of the United States Marine Corps Base, Quantico.

Esri Business Information Solutions, based on the U.S. Census, is the source of much of the demographic data provided in this section. The Weldon-Cooper Center for Public Service at the University of Virginia provided more specific county-based data. The Weldon-Cooper Demographics Research Group produces the official annual population estimates for Virginia and its localities. The U.S. Census American Community Survey provided additional information. A summary of demographic highlights is followed by more detailed demographic analysis

Summary

Key demographic trends for park and recreation planning efforts in Stafford County are summarized below.

- According to ESRI Business Information Solutions (based on the 2010 U.S. Census), the estimated median household income for Stafford residents in 2014 was \$97,110.
- The median age for the County is 35.0, lower than the median age (37.1) for the United States.
- The gender distribution in 2014 was 50.2 percent male to 49.8 percent female.
- Population has increased 7% between 2010 and 2014.
- Total population growth is projected to increase from 138,230 in 2014 to 163,923 in 2019.

Demographic Analysis

Population Projections

Table 1 illustrates the population trend for Stafford County.

Although future population growth cannot be predicted with certainty, it is helpful to make assumptions about it for planning purposes. **Table 1** contains actual population figures based on the 2010 U.S. Census for Stafford County and Weldon Cooper Center's estimate for 2015 and projection for 2020. The annual growth rate from 2010 through 2015 was 8.7 percent. Weldon Cooper's projected percentage of growth for 2015 through 2020 is 27 percent for Stafford County, compared to the projected 2015 – 2020 percentage of for the State of Virginia of 5.1 percent.

Table 1: Population projections

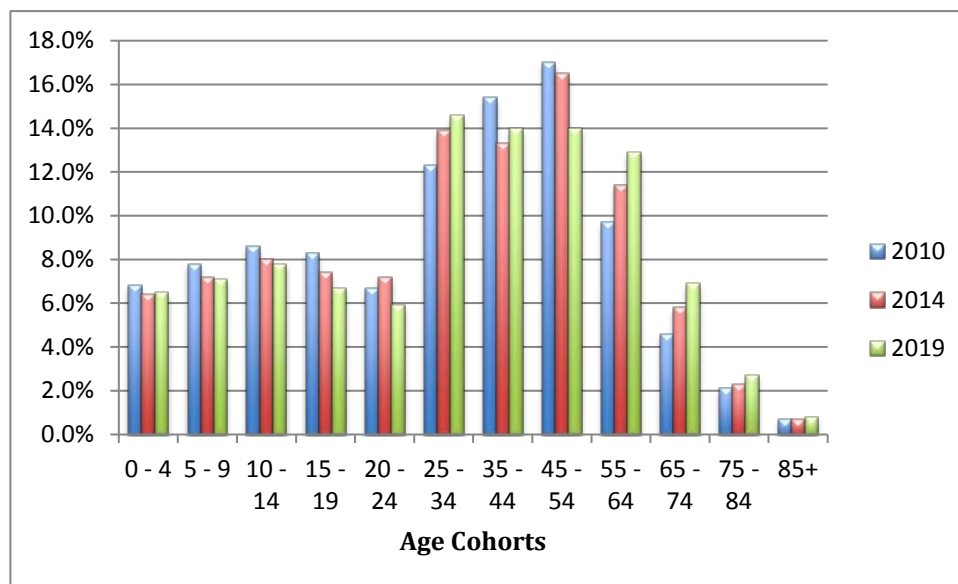
U.S. Census (2000 and 2010) and Weldon Cooper Projections	
2000 Population	92,446
2010 Population	128,961
2015 Estimated	140,176
2020 Projected	178,152

Source: 2010 Census and Esri Business Information Solutions 2013 Demographic and Income Profile. Weldon-Cooper Center

Population Age Ranges

A comparison of the estimated population break down by age for Stafford County from 2010 to 2019 is shown in **Figure 1**. The gender distribution in 2014 was 50.2 percent male to 49.8 percent female. The median age in 2014 was 35.

Figure 1: Population Age Distribution for the Years 2010, 2014, and 2019

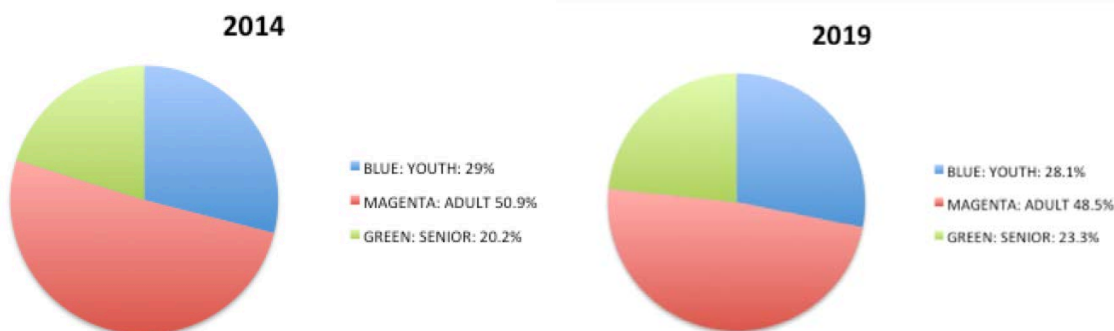


Source: Esri Business Information Solutions 2014 estimate based on the 2010 U.S. Census.

The age demographics have undergone a number of changes in Stafford County from 2010 to 2014 with these trends predicted to continue through 2019. The 25 – 34 age cohort is predicted to grow by 2.3 percent to 14.6 percent from 2010 to 2019 while the cohorts representing the 55 – 74 age range are predicted to jump by a total of 5.5 percent to represent close to a 20 percent demographic in 2019. At the same time, the 45 – 54 age cohort is predicted to drop 3 percent, from 17 to 14 percent of the population, from 2010 to 2019.

Figure 2: Stafford County Current and Projected Population Proportions

Youth: age 0 to 19, Adult: age 20 to 54, Senior: age 55 and older.



Demographic Shift

- Baby Boomers are driving the aging of America with Boomers and seniors over 65 composing about 39 percent of the nation's population. In the leisure profession, this generation's devotion to exercise and fitness is an example of its influence on society. Stafford County's demographic profile indicates that 27.9 percent of the current population falls within the Baby Boomer age range (those approximately 45-64 years of age). Boomers will look to park and recreation professionals to give them opportunities to enjoy many life-long hobbies and sports.
- The youth population proportion is smaller than in the past, but still essential to our future. As of the 2010 Census, the age group under age 18 forms about a quarter of the U.S. population, and this percentage is at an all-time low.

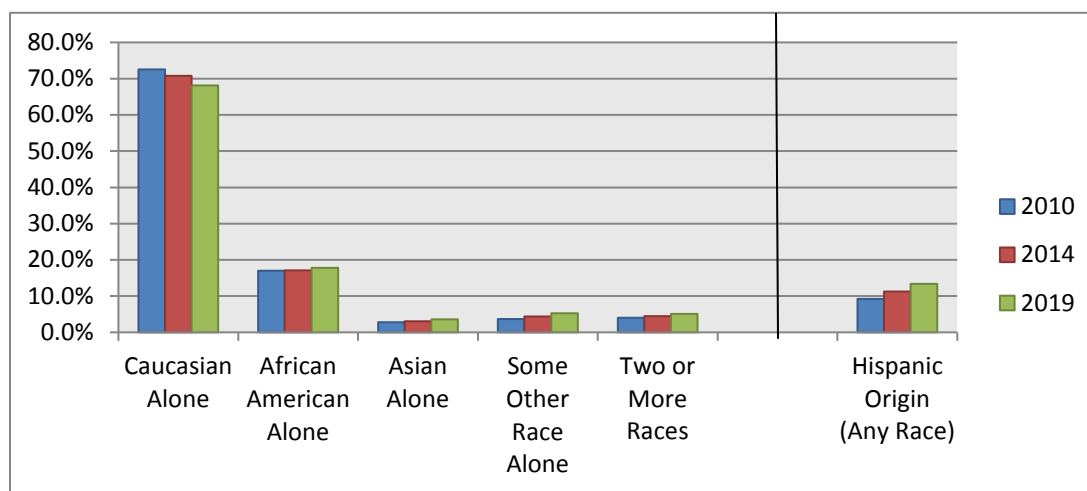
Race/Ethnicity

Figure 3 reflects the racial/ethnic population distribution for Stafford County. 70.8 percent of the population was Caucasian in 2014, with an African American population approaching 20 percent at 17.1 percent, and an Asian population at 3.1 percent.

The population of Hispanic origin provides a separate look at the population, irrespective of race, and this population was at 11.3 percent in 2014. Hispanic origin can be viewed as the heritage, nationality, lineage, or country of birth of the person or the person's parents or ancestors before arriving in the United States. In the U.S. Census, people who identify as Hispanic, Latino, or Spanish may be any race and are included in all of the race categories. The right side of **Figure 3** represents Hispanic Origin as recorded in the U.S. Census.

- The Caucasian population is trending downward from 72.5 percent in 2010 to a predicted 68.1 percent in 2019.
- The African American and Asian populations are trending slightly upward, along with those who identify with two or more races, with each group growing about 1 percent from 2010 to 2019.
- The population of Hispanic origin (irrespective of race), at 9.2 percent in 2010, is expected to grow to 13.4 percent of the population by 2019.

Figure 3: Ethnicity Statistics (2014)



Source: Esri Business Information Solutions, 2014 and 2019 estimates from 2010 U.S. Census.

Educational Attainment

As shown in **Table 2**, the highest-ranking educational cohorts in Stafford County are those residents with some college, no degree (22.8%), high school graduates (22.2%), and those with a Bachelor's degree (21.7%), followed by those with a graduate or professional degree (13.9%). According to a census study, education levels had more effect on earnings over a 40-year span in the workforce than any other demographic factor, such as gender, race, and ethnic origin.¹

Table 2: Stafford County, Virginia – 2014 Educational Attainment

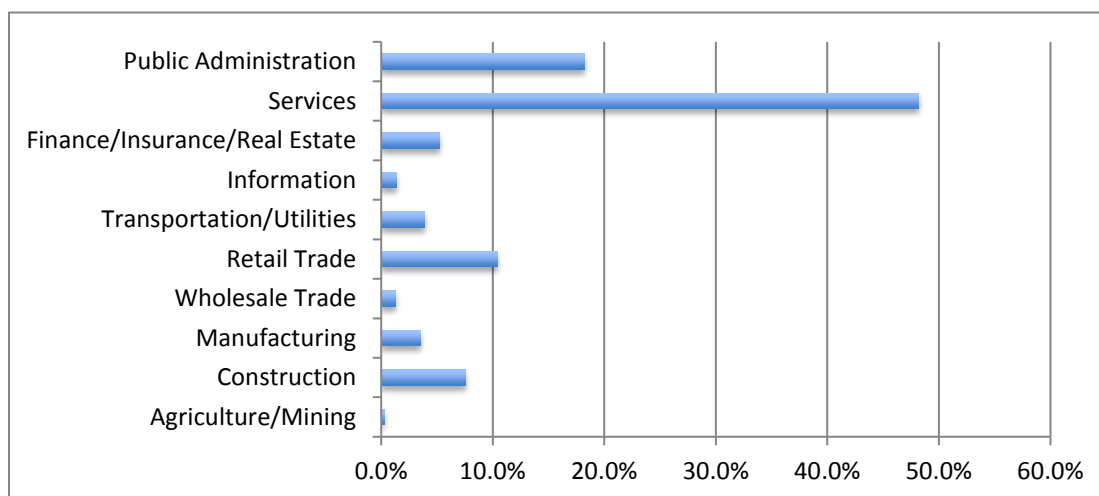
Education Attainment	Service Area Percentage
Less than 9 th grade	2.0%
9th to 12th grade, no diploma	6.0%
High school graduate	22.2%
GED/Alternative Credential	3.4%
Some college, no degree	22.8%
Associate's degree	8.0%
Bachelor's degree	21.7%
Graduate or professional degree	13.9%

Source: Esri Business Information Solutions 2014 estimate based on the 2010 U.S. Census.

Employment

According to the Esri estimates for 2014, the industries in Stafford County providing the greatest employment percentages are the Service Industry (48.2%), Public Administration (18.2%), Retail Trade (10.4%), and Construction (7.6%). **Figure 4** reflects the Esri estimate of employment by industry in the County in 2014.

Figure 4: 2014 Employment by Industry



¹ Tiffany Julian and Robert Kominski, "Education and Synthetic Work-Life Earnings Estimates" American Community Survey Reports, US Census Bureau, <http://www.census.gov/prod/2011pubs/acs-14.pdf>, September 2011.

Household Information

As reflected in **Table 3**, in 2014, Stafford County had 46,560 housing units with a 72.5 percent owner-occupied housing rate, compared to 22.5 percent renter occupied rate. The owner-occupied housing rate has dropped somewhat since 2000 when 77.4 percent of the housing in Stafford County was owner-occupied. The average household size in 2014 was 3.00.

Table 3: Stafford County Housing Statistics

	2000	2010	2014	2019
Total housing units	31,405	43,978	46,560	50,967
Percent owner occupied	77.4%	73.5%	72.5%	72.5%
Percent renter occupied	18.7%	21.4%	22.5%	22.6%
Percent vacant	3.9%	5.0%	5.0%	4.9%

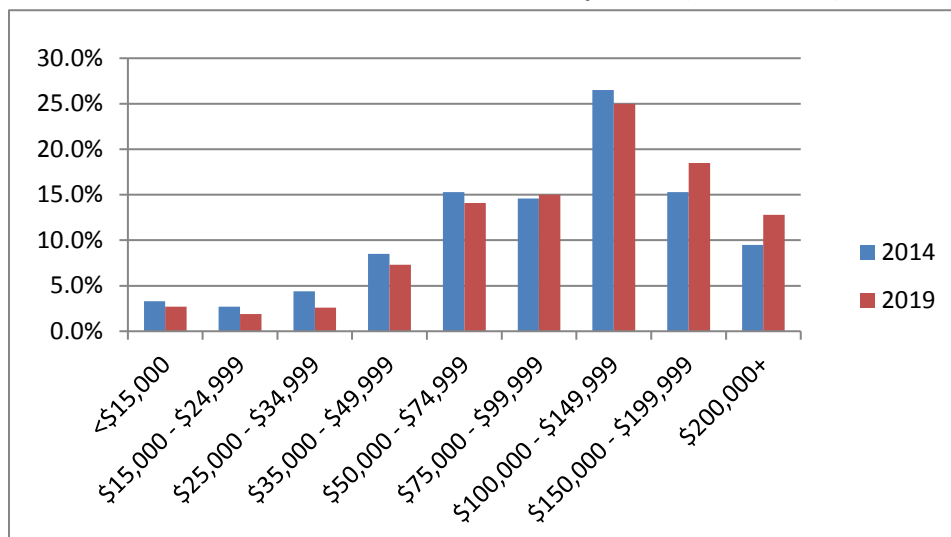
Source: 2010 U.S. Census; 2014 estimates and 2019 forecasts provided by ESRI Business Information Solutions.

Household Income

The estimated 2014 median household income for residents of Stafford County was \$97,110 and is expected to grow to \$108,487 by 2019. **Figure 5** illustrates the full income distribution estimated for Stafford County in 2014 and projected for 2019.

- In 2014, the largest percentage of residents had an income in the \$100,000 - \$149,999 income range (26.5%) followed by the \$50,000 - \$74,999 income range and \$150,000 - \$199,999 income ranges (each at 15.3%).
- Income distribution in the \$150,000 - \$199,999 and \$200,000+ ranges is expected to rise by 3.2 percent and 3.3 percent, respectively, from 2014 to 2019.

Figure 5: Annual Household Income Distribution Comparison (2014 - 2019)



Source: Esri Business Information Solutions, 2014

Park and Recreation Influencing Trends

The following information highlights relevant regional and national outdoor recreation trends from various sources that may influence Stafford County's parks and recreation planning for the next several years.

Demographic Trends in Recreation

Adult – The Millennial Generation

The Millennial Generation is generally considered to represent those born between about 1980 and 1999. The 25-34 age cohort range is expected to be the highest ranking cohort in Stafford County in 2019, growing from 13.9 percent in 2014 to 14.6 percent in 2019. This group represents potential adult program participants. Many in this age group are beginning long-term relationships and establishing families.

In their book, Millennials Rising, the Next Great Generation, authors William Strauss and Neil Howe identify seven Millennials characteristics:²

1. **Special:** Used to receiving rewards just for participating, Millennials are raised to feel special.
2. **Sheltered:** Millennials lead structured lives filled with rules and regulations. Less accustomed to unstructured play than previous generations and apprehensive of the outdoors, they spend most of their time indoors, leaving home primarily to socialize with friends and families.
3. **Team oriented:** This group has a “powerful instinct for community” and “places a high value on teamwork and belonging.”
4. **Technically savvy:** Upbeat and with a can-do attitude, this generation is “more optimistic and tech-savvy than its elders.”
5. **Pressured:** Millennials feel “pressured to achieve and pressured to behave.” They have been “pushed to study hard and avoid personal risk.”
6. **Achieving:** This generation is expected to do great things, and they may be the next “great” generation.
7. **Conventional (and diverse):** Millennials are respectful of authority and civic minded. Respectful of cultural differences because they are ethnically diverse, they also value good conduct and tend to have a “standardized appearance.”

The highest ranking age cohorts in Stafford County in 2014 were 45-54, 25-34, and 35-44 (16.5%, 13.9% and 13.3% of the population, respectively), with growth expected in the 25-34, 55-64, and 65-74 age cohorts through 2019. Planning for the next ten years suggests a growing demand for programs and services for Millennials, Baby Boomers, and seniors.

In a 2011 study of the Millennial Generation,³ Barkley Advertising Agency made the following observations about Millennials and health/fitness:

- Sixty percent (60%) of Millennials say they try to work out on a regular basis. Twenty-six percent (26%) consider themselves health fanatics.
- Much of this focus on health is really due to vanity and/or the desire to impress others — 73% exercise to enhance their physical appearance.

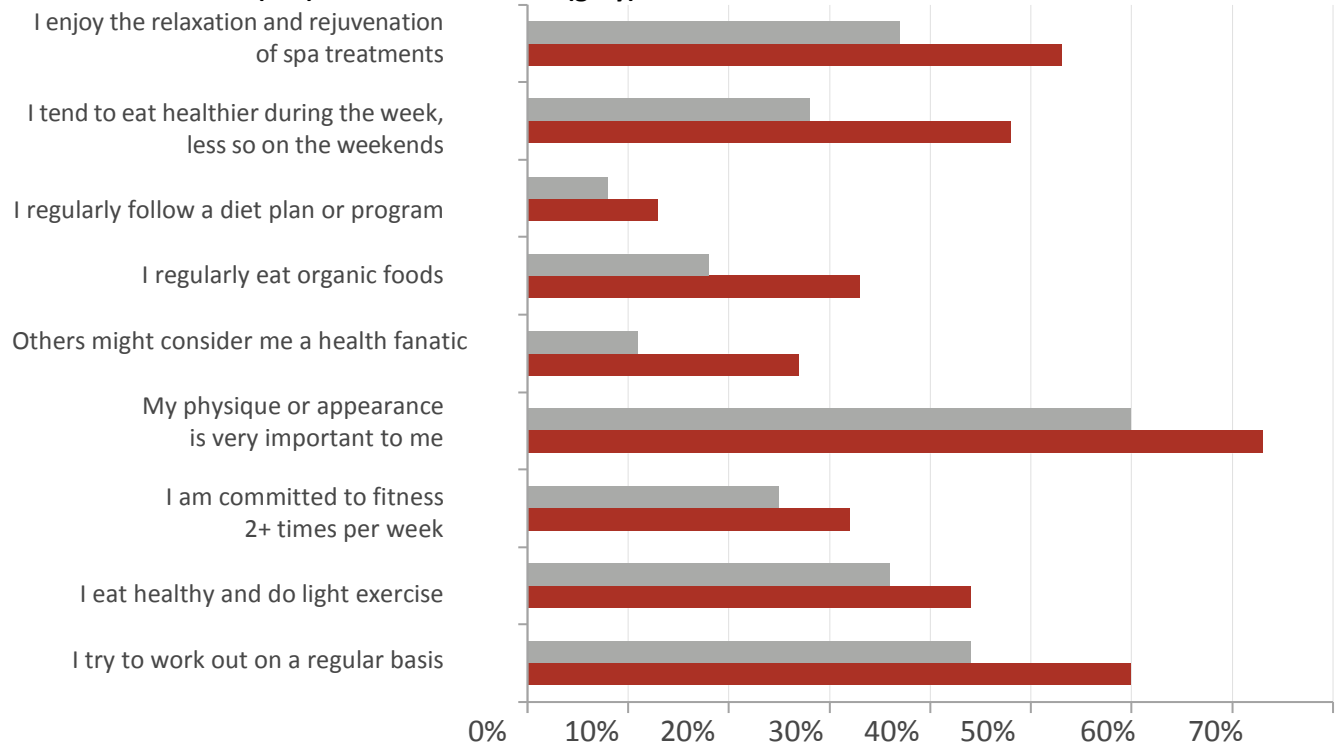
² Neil Howe and William Strauss, Millennials Rising, the Next Great Generation, Vintage: New York, New York, 2000.

³ American Millennials: Deciphering the Enigma Generation, <https://www.barkleyus.com/AmericanMillennials.pdf>, accessed May 2015.

- Millennials are also fans of relaxation and rejuvenation, as 54 percent regularly treat themselves to spa services.
- Despite their commitment to health, Millennials stray from their healthy diets on weekends. There is a noticeable difference between their intent to work out regularly and the amount of exercise that they actually accomplish

Table 4 illustrates contrasts between Millennials and Non-Millennials regarding a number of health and fitness topics.⁴

Table 4: Millennials (red) Vs. Non-Millennials (grey) on Health and Fitness



Source: Barkley's Report on Millennials.

Adults – Baby Boomers

Baby Boomers are defined as individuals born between 1946 and 1964, as stated in “Leisure Programming for Baby Boomers.”⁵ They are a generation that consists of nearly 76 million Americans. In 2011, this influential population began its transition out of the workforce. As Baby Boomers enter retirement, they will be looking for opportunities in fitness, sports, outdoors, arts and cultural events, and other activities that suit their lifestyles. With their varied life experiences, values, and expectations, Baby Boomers are predicted to redefine the meaning of recreation and leisure programming for mature adults. In the July 2012 of *Parks and Recreation* magazine, Emilyn Sheffield published an article titled “Five Trends Shaping Tomorrow Today.” In it, she indicated that Baby Boomers are driving the aging of America, with Boomers and seniors over 65 composing about 39 percent of the nation’s population.⁶

⁴ Barkley report.

⁵ Linda Cochran, Anne Roshchadl, and Jodi Rudick, “Leisure Programming For Baby Boomers,” Human Kinetics, 2009.

⁶ Emilyn Sheffield, “Five Trends Shaping Tomorrow Today,” *Parks and Recreation*, July 2012, p. 16-17.

In the leisure profession, this generation's devotion to exercise and fitness is an example of its influence on society. When boomers entered elementary school, President John Kennedy initiated the President's Council on Physical Fitness; physical education and recreation became a key component of public education. As Boomers matured and moved into the workplace, they took their desire for exercise and fitness with them. Now as the oldest Boomers are nearing 70, park and recreation professionals are faced with new approaches to provide both passive and active programming for older adults. Boomers are second only to Gen Y/Millennials (born between 1980 and 1999) in participation in fitness and outdoor sports.⁷

Jeffrey Ziegler, identified "Boomer Basics" in his article, "Recreating Retirement: How Will Baby Boomers Reshape Leisure in their 60s?"⁸ Highlights are summarized below.

Boomers are known to work hard, play hard, and spend hard. They have always been fixated with all things youthful. Boomers typically respond that they feel 10 years younger than their chronological age. Their nostalgic mindset keeps Boomers returning to the sights and sounds of their 1960s youth culture. Swimming pools have become less of a social setting and much more of an extension of Boomers' health and wellness program. Because boomers have, in general, a high education level they will likely continue to pursue education as adults and into retirement.

Stafford County's demographic profile indicates that 27.9% of the current population falls within the Baby Boomer age range (those approximately 52-70 years of age).

Boomers will look to park and recreation professionals to give them opportunities to enjoy many life-long hobbies and sports. When programming for this age group, a customized experience to cater to the need for self-fulfillment, healthy pleasure, nostalgic youthfulness, and individual escapes will be important. Recreation trends will shift from games and activities that boomers associate with senior citizens, as Ziegler suggests that activities such as bingo, bridge, and shuffleboard will likely be avoided because boomers relate these activities to being old.

Boomers will reinvent what being a 65-year-old means. Parks and recreation agencies that don't plan for Boomers carrying on in retirement with the same hectic pace they have lived during their years in employment will be left behind. Things to consider when planning for the demographic shift:

- Boomer characteristics
- What drives Boomers?
- Marketing to Boomers
- Arts and entertainment
- Passive and active fitness trends
- Outdoor recreation/adventure programs
- Travel programs

⁷2012 Participation Report, Physical Activity Council, 2012.

⁸Jeffrey Ziegler, "Recreating Retirement: How Will Baby Boomers Reshape Leisure in Their 60s?," Parks and Recreation, October 2002.

Youth – Generation Z

Emilyn Sheffield also identified that the proportion of youth is smaller than in the past, but still essential to our future. As of the 2010 Census, the age group under age 18 forms about a quarter of the U.S. population. Nationwide, nearly half of the youth population is ethnically diverse, and 25 percent is Hispanic. In Stafford County, about 29 percent of the population is 19 and under.

Characteristics cited for Generation Z, the youth of today,⁹ include:

- The most obvious characteristic for Generation Z is the pervasive use of technology.¹⁰
- Generation Z members live their lives online and they love sharing both the intimate and mundane details of life.
- They tend to be acutely aware that they live in a pluralistic society and tend to embrace diversity.
- Generation Zers tend to be independent. They don't wait for their parents to teach them things or tell them how to make decisions.¹¹

With regard to physical activity, a 2013 article published by academics at Georgia Southern University¹² notes that the prevalence of obesity in Generation Z (which they describe as individuals born since the year 2000) is triple that of Generation Xers (born between 1965 and 1979). It suggests that due to increased use of technology, Generation Z spends more time indoors, is less physically active, and more obese compared to previous generations. The researchers noted that Generation Z is a generation that seeks social support from peers more so than any previous generation. This is the most competent generation from a technological standpoint, but Generation Zers tend to struggle in and fear some basic activities such as physical activity and sports.

Multiculturalism

Our country is becoming increasingly racially and ethnically diverse. In May 2012, the U.S. Census Bureau announced that non-white babies now account for the majority of births in the United States. "This is an important tipping point," said William H. Frey,¹³ the senior demographer at the Brookings Institution, describing the shift as a, "transformation from a mostly white Baby Boomer culture to the more globalized multi-ethnic country that we are becoming." Cultural and ethnic diversity adds a unique flavor to communities expressed through distinct neighborhoods, multicultural learning environments, restaurants, places of worship, museums, and nightlife.¹⁴

⁹ Note: There does not appear to be a general consensus about the transition from Millennials to Generation Z. The range cited in various articles puts the transition year anywhere from about 1994 to 2000.

¹⁰ La Monica Everett-Haynes, "Trending Now: Generation Z," Arizona University UA News Blog, <http://uanews.org/blog/trending-now-generation-z>, accessed July 30, 2015.

¹¹ Alexander Levit, "Make Way for Generation Z," *The New York Times*, March 28, 2015, http://www.nytimes.com/2015/03/29/jobs/make-way-for-generation-z.html?_r=0.

¹² David D. Biber, Daniel R. Czech, Brandon S. Harris, and Bridget F. Melton, "Attraction to physical activity of generation Z: A mixed methodological approach," *Open Journal of Preventive Medicine*, Vol.3, No.3., 310 – 319 (2013), <http://dx.doi.org/10.4236/ojpm.2013.33042>.

¹³ Adam Serwer, "The End of White America," *Mother Jones*, <http://www.motherjones.com/kevin-drum/2012/05/end-white-america>, May 17, 2012.

¹⁴ Baldwin Ellis, "The Effects of Culture & Diversity on America," http://www.ehow.com/facts_5512569_effects-culture-diversity-america.html, accessed on Sept. 20, 2012.

As the recreation field continues to function within a more diverse society, race and ethnicity will become increasingly important in every aspect of the profession. More than ever, recreation professionals will be expected to work with, and have significant knowledge and understanding of, individuals from many cultural, racial, and ethnic backgrounds.

While Stafford County has a substantial Caucasian population (70.8 percent in 2014), the Stafford County demographic profile indicates that 17.1 percent of the population is African American and 3.1 percent, Asian. Additionally, 11.3 percent of the population identifies to be of Hispanic origin (irrespective of race).

The population of Hispanic origin provides separate look at the population, irrespective of race. Hispanic origin can be viewed as the heritage, nationality, lineage, or country of birth of the person or the person's parents or ancestors before arriving in the United States. In the U.S. census, people who identify as Hispanic, Latino, or Spanish may be any race and are included in all of the race categories. As recorded in the Esri demographics, an estimated 11.3 percent of the Stafford County population self-identified as being of Hispanic origin in 2014.

- **Outdoor participation varies by ethnicity:** Participation in outdoor activities is higher among Caucasians than any other ethnicity and lowest among African Americans in nearly all age groups.
- **Lack of interest reason for not participating:** When asked why they did not participate in outdoor activities more often, the number one reason given by people of all ethnicities and races was because they were not interested.
- **Most popular outdoor activities:** Biking, running, fishing, and camping were the most popular outdoor activities for all Americans, with each ethnic/racial group participating in each in varying degrees.

Multiculturalism and Marketing

Today the marketplace for consumers has dramatically evolved in the United States from a largely Anglo demographic, to the reality that the United States has shifted to a large minority consumer base known as "new majority."

The San Jose Group, a consortium of marketing communications companies specializing in reaching Hispanic and non-Hispanic markets of the United States, suggests that today's multicultural population of the United States, or the "new majority," is 107.6 million, which translates to about 35.1 percent of the country's total population. The United States' multicultural population alone could essentially be the twelfth largest country in the world.¹⁵ Parks and recreation trends in marketing leisure services continue to emerge and should be taken into consideration in all planning efforts, as different cultures respond differently to marketing techniques.

¹⁵ "SJG Multicultural Facts & Trends," San Jose Group, <http://blog.thesanjosegroup.com/?p=275>, posted October 25, 2010.

Facilities

According to *Recreation Management* magazine's 2015 "State of the Industry Report,"¹⁶ national trends show an increased user-base of recreation facilities (private and public). Additionally, parks and recreation providers responding to the survey indicated an average age of 26.4 years for their community recreation facilities. To meet that growing need, a majority of the parks and recreation survey respondents (72.6%) reported that they have plans to build new facilities or make additions or renovations to



their existing facilities over the next three years. Nearly one-third (32.4%) of parks respondents said they have plans to build new facilities, and 29.9% said they plan to add to their existing facilities. More than half (53.1%) are planning renovations to existing facilities.

Also according to the 2015 "State of the Industry Report," the average amount planned for parks and recreation department construction in the 2015 budgets saw an increase from an average of \$3,795,000 in the previous year's survey to an average of \$3,880,000 for 2015. Currently, the most likely features included in park facilities are playgrounds, park shelters, restroom structures, walking and hiking trails, open spaces – gardens and natural areas, bleachers and seating, outdoor sports courts, natural turf sports fields, concession areas, and classrooms/meeting rooms. The top 10 planned features to be constructed for all facility types are:

1. Splash play areas (planned by 23.4% of parks respondents who will be adding features)
2. Playgrounds (22.4%)
3. Dog parks (22%)
4. Fitness trails and outdoor fitness equipment (21.5%)
5. Hiking and walking trails (20.3%)
6. Bike trails (20.1%)
7. Park restroom structures (19.5%)
8. Park structures such as shelters and gazebos (17.7%)
9. Synthetic turf sports fields (16.1%)
10. Wi-Fi services (14.4%)

The current national trend is toward "one-stop" indoor recreation facilities to serve all ages. Large, multipurpose regional centers help increase cost recovery, promote retention, and encourage cross-use. Agencies across the United States are increasing revenue production and cost recovery. Providing multiuse and flexibility in facilities versus specialized space is a trend, offering programming opportunities as well as free-play opportunities. "One-stop" facilities attract young families, teens, and adults of all ages.

¹⁶ Emily Tipping, "2015 State of the Industry Report, State of the Managed Recreation Industry," *Recreation Management*, June 2015.

Aquatics/Water Recreation Trends

According to the National Sporting Goods Association (NSGA), swimming ranked third nationwide in terms of participation in 2014.¹⁷ Outdoor swimming pools are not typically heated and open year round. Swimming for fitness is the top aspirational activity for “inactives” in six of eight age categories in the Sports & Fitness Industry Association (SFIA) 2013 “Sports, Fitness and Leisure Activities Topline Participation Report,” representing a significant opportunity to engage inactive populations. Nationally, there is an increasing trend towards indoor leisure and therapeutic pools.

Additional indoor and outdoor amenities like “spray pads” are becoming increasingly popular as well. In some cities and counties spray pools are popular in the summer months and turn into ice rinks in the winter months. In this maturing market, communities are looking for atmosphere, an extension of surroundings either natural or built. Communities are also concerned about water quality and well as conservation. Interactive fountains are a popular alternative, ADA-compliant and low maintenance. Trends in architectural design for splash parks can be found in *Recreation Management* articles in 2014 and 2015.¹⁸

The Outdoor Foundation’s 2015 “Outdoor Recreation Participation Topline Report” provided nationwide trends for various outdoor activities, including the following water recreation activities: board sailing/windsurfing, canoeing, fishing, kayaking, rafting, sailing, stand-up paddle boarding, and wakeboarding (**Table 5**). Among water recreation activities, stand-up paddle boarding had the largest increase in participation from 2012 to 2014 (30.5% increase) followed by several varieties of the kayaking experience: kayak fishing (20.1% increase) and whitewater kayaking (15.1% increase). Fly fishing participation went up, while other fishing activities went down in the same time period. Sailing participation increased somewhat, while rafting and wakeboarding participation went down.¹⁹

Table 5: Water Recreation Participation by Activity (in thousands) (6 years of age or older)

	2010	2011	2012	2013	2014	3 Year Average Change
Boardsailing/windsurfing	1,617	1,151	1,593	1,324	1,562	13.2%
Canoeing	10,553	9,787	9,839	10,153	10,044	0.9%
Fishing (fly)	5,478	5,683	6,012	5,878	5,842	1.0%
Fishing (freshwater/other)	38,860	38,868	39,135	37,796	37,821	-0.9%
Kayak fishing	1,044	1,201	1,409	1,798	2,074	20.1%
Kayaking (recreational)	6,465	8,229	8,144	8,716	8,855	2.5%
Kayaking (white water)	1,842	1,546	1,878	2,146	2,351	15.1%
Rafting	4,460	3,821	3,690	3,836	3,781	-0.3%
Sailing	3,869	3,725	3,958	3,915	3,924	1.8%
Stand up paddle boarding	1,050	1,242	1,542	1,993	2,751	30.5%
Wakeboarding	3,645	3,389	3,348	3,316	3,125	-2.6%

Source: Outdoor Foundation 2015 (numbers in thousands).

¹⁷ “2014 Participation – Ranked by Total,” National Sporting Goods Association, 2015.

¹⁸ Dawn Klingensmith “Make a splash: Spraygrounds Get (Even More) Creative,” *Recreation Management*, April 2014 (and April 2015 updates). (http://recmanagement.com/feature_print.php?fid=201404fe01).

¹⁹ *Outdoor Recreation Participation Topline Report 2015*, Outdoor Foundation, 2015.

Dog Parks

Dog parks continue to see high popularity and have remained among the top planned addition to parks and recreational facilities over the past three years. In 2014, the National Dog Park Association was founded, dedicated to providing informational resources for starting and maintaining dog parks.

Recreation Management magazine²⁰ suggests that dog parks can represent a relatively low-cost way to provide an oft-visited a popular community amenity. Dog parks can be as simple as a gated area, or more elaborate with “designed-for-dogs” amenities like water fountains, agility equipment, and pet wash stations, to name a few. Even “spraygrounds” are being designed just for dogs. Dog parks are also places for people to meet new friends and enjoy the outdoors. The best dog parks cater to people with design features for their comfort and pleasure, but also with creative programming.²¹ Amenities in an ideal dog park might include the following:

- Benches, shade, and water – for dogs and people.
- At least one acre of space with adequate drainage.
- Double gated entry.
- Ample waste stations well-stocked with bags.
- Sandy beaches/sand bunker digging areas.
- Custom designed splashpads for large and small dogs.
- People-pleasing amenities such as walking trails, water fountains, restroom facilities, picnic tables, and dog wash stations.

Programming

Fitness Programming

There have been many changes in fitness programs in the last 15 years. What clients wanted in 2000 is not necessarily what they want today. The American College of Sports Medicine (ACSM) *Health and Fitness Journal*²² has conducted a survey annually since 2007 to determine trends that would help create a standard for health and fitness programming. **Table 6** shows survey results that focus on trends in the commercial, corporate, clinical, and community health and fitness industry. Some trends first identified in 2007 have stayed near the top of the list year after year while others came and went in popularity. Zumba made a brief appearance on the top 10 in 2012, but fell off the list of top 20 in 2014. Body weight training appeared as a developing trend in 2014 and is projected to stay strong in 2015 as is high-intensity interval training. Yoga is regaining popularity after falling out of the top 20 in 2009 and staying out of the top 10 until 2014. Fitness programs for older adults will remain strong in 2015.

²⁰ Emily Tipping, “2014 State of the Industry Report, Trends in Parks and Recreation,” *Recreation Management*, June 2014.

²¹ Dawn Klingensmith “Gone to the Dogs: Design and Manage an Effective Off-Leash Area,” *Recreation Management*, March 2014. (http://recmanagement.com/feature_print.php?fid=201403fe02).

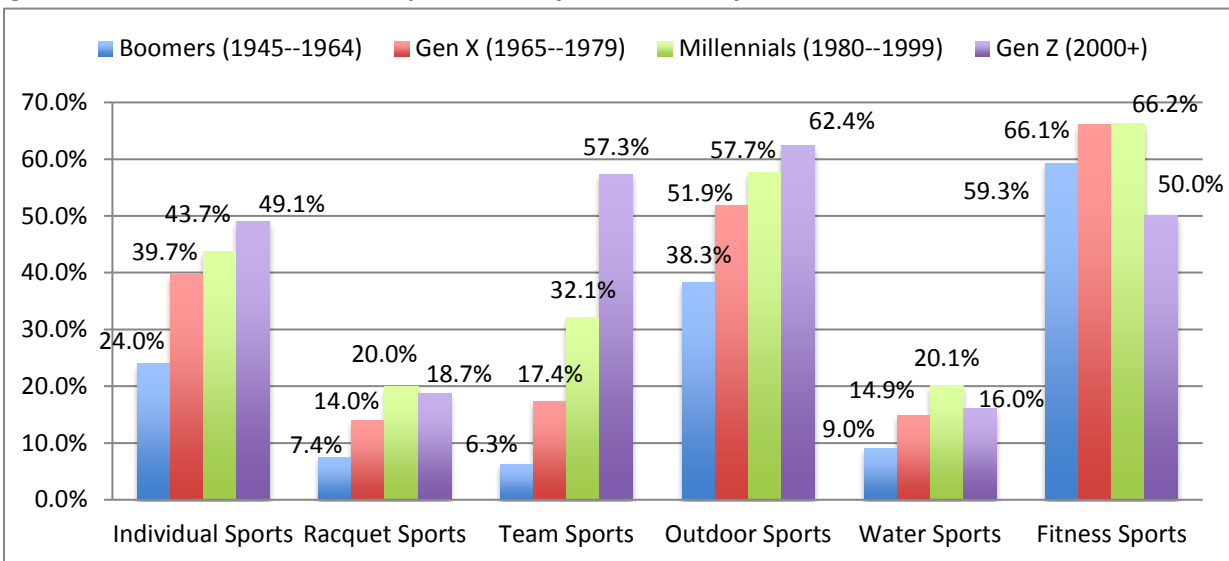
²² Walter R. Thompson, “Worldwide Survey of Fitness Trends for 2012,” *Health & Fitness Journal*, American College of Sports Medicine, 2011.

Table 6: Top 10 Worldwide Fitness Trends for 2007 and Predicted Trends for 2015

2007	Trends for 2015
1.Children and obesity	1. Body weight training
2.Special fitness programs for older adults	2. High-intensity interval training
3.Educated and experienced fitness professionals	3. Educated and experienced fitness professionals
4. Functional fitness	4. Strength training
5. Core training	5 Personal training
6. Strength training	6. Exercise and weight loss
7. Personal training	7. Yoga
8. Mind/body exercise	8. Fitness programs for older adults
9. Exercise and weight loss	9. Functional fitness
10. Outcome measurements	10. Group personal training

Source: American College of Sports Medicine

According to the 2015 “Participation Report” by the Physical Activity Council,²³ over half of each generation participates in fitness sports and that team sports are more of a Generation Z activity while water and racquet sports are dominated by Millennials. Outdoor and individual sports tend to have younger participants with participation decreasing with age. **Figure 6** illustrates participation rates by generation.

Figure 6: A Breakdown of Fitness Sports Participation Rates by Generation

Source: 2015 Participation Report, Physical Activity Council.

²³ 2015 Participation Report,” Physical Activity Council, 2015.

General Programming

One of the most common concerns in the recreation industry is creating innovative programming to draw participants into facilities and services. Once in, participants recognize that the benefits are endless. According to *Recreation Management* magazine's 2015 "State of the Industry Report,"²⁴ the most common programs offered by parks and recreation survey respondents include holiday events and other special events (79.6%); youth sports teams (68.9%); day camps and summer camps (64.2%); educational programs (63.8%); adult sports teams (63.4%); arts and crafts (61.6%); programs for active older adults (56.2%); fitness programs (55%); sports tournaments and races (55%); and sports training such as golf or tennis instruction (53.8%).



About one-third (35.7%) of parks and recreation respondents indicated that they are planning to *add* programs at their facilities over the next three years. The 10 most common types of additional programming planned for 2015 include:

1. Environmental education programs (up from No. 7)
2. Mind-body/balance programs such as yoga and tai chi (up from No. 6)
3. Fitness programs (down from No. 2)
4. Educational programs (up from No. 8)
5. Programs for active older adults (down from No. 1)
6. Teen programming (down from No. 3)
7. Holidays and special events (down from No. 5)
8. Day camps and summer camps (did not appear in 2014)
9. Adult sports teams (down from No. 4)
10. Water sports such as canoeing and kayaking (did not appear in 2014)

Older Adults and Senior Programming

The American Academy of Sports Medicine issues a yearly survey of the top 20 fitness trends.²⁵ It ranks senior fitness programs eighth among most popular fitness trends for 2015. Whether it is SilverSneakers, a freestyle low-impact cardio class, or water aerobics, more and more people are realizing the many benefits of staying active throughout life. According to the National Sporting Goods Association, popular senior programming trends include hiking, birding, and swimming.

²⁴ Emily Tipping, "2015 State of the Industry Report, Trends in Parks and Recreation," *Recreation Management*, June 2015.

²⁵ "Survey Predicts Top 20 Fitness Trends for 2015," American College of Sports Medicine, <http://www.acsm.org/about-acsm/media-room/news-releases/2014/10/24/survey-predicts-top-20-fitness-trends-for-2015>, accessed January 2015.

Festivals and Events

In the context of urban development, from the early 1980s, there has been a process that can be characterized as “festivalization,” which has been linked to the economic restructuring of towns and cities, and the drive to develop communities as large-scale platforms for the creation and consumption of “cultural experience.”

The success rate for festivals should not be evaluated simplistically solely on the basis of profit (sales), prestige (media profile), and/or size (numbers of events). Research by the European Festival Research Project (EFRP)²⁶ indicates that there is evidence of local and city government supporting and even instigating and managing particular festivals themselves to achieve local or regional economic objectives, often defined very narrowly (sales, jobs, tourists, etc.). There are also a growing number of smaller, more local, community-based festivals and events in communities, most often supported by local councils that have been spawned partly as a reaction to larger festivals that have become prime economic-drivers. These community-based festivals often will re-claim cultural ground based on their social, educational, and participative value. For more information on the values of festivals and events, see the “CRC Sustainable Tourism” research guide²⁷ on this topic.

In 2014, festivals grew in popularity as economic drivers and urban brand builders. Chad Kaydo describes the phenomenon in the January 2014 issue of *Governing* magazine. “Municipal officials and entrepreneurs see the power of cultural festivals, innovation-focused business conferences and the like as a way to spur short-term tourism while shaping an image of the host jurisdiction as a dynamic location where companies and citizens in modern, creative industries can thrive.”

There are numerous examples of community based festivals and events such concerts featuring local music, arts festivals, ethnic festivals, seasonal festivals such as harvest festivals and spring fests, or events celebrating local specialties such as a blueberry festival or an apple festival.

Healthy Lifestyle Trends and Active Living

Active Transportation – Bicycling and Walking

Bicycle-friendly cities have been emerging over the last 10 years. Cycling has become a popular mode of transportation as people consider the rising cost of fuel, desire for better health, and concern for the environment. Some people also use cycling as a mode of transportation just for the fun of it.

The Alliance for Biking and Walking published its “Bicycling and Walking in the United States: 2014 Benchmarking Report,”²⁸ updating its 2012 Benchmarking Report. The report shows that increasing bicycling and walking are goals that are clearly in the public interest. Where bicycling and walking levels are higher, obesity, high blood pressure, and diabetes levels are lower.

²⁶ EFRP is an international consortium seeking to understand the current explosion of festivals and its implications and perspective. <http://www.efa-aef.eu/en/activities/efrp/>, accessed October 2012.

²⁷ Ben Janeczko, Trevor Mules, Brent Ritchie, “Estimating the Economic Impacts of Festivals and Events: A Research Guide,” Cooperative Research Centre for Sustainable Tourism, 2002, <http://www.sustainabletourisonline.com/1005/events/estimating-the-economic-impacts-of-festivals-and-events-a-research-guide>, accessed October 2012.

²⁸ 2014 *Benchmarking Report*, Alliance for Biking and Walking, <http://www.bikewalkalliance.org/download-the-2014-benchmarking-report>, accessed January 23, 2015.

Design of a community's infrastructure is directly linked to physical activity – where environments are built with bicyclists and pedestrians in mind, more people bike and walk. Higher levels of bicycling and walking also coincide with increased bicycle and pedestrian safety and higher levels of physical activity. Increasing bicycling and walking make a big impact on improving public health and life expectancy. The following trends as well as health and economic indicators are pulled from the 2012 and 2014 Benchmarking Reports:

Public health trends related to bicycling and walking include:

- Quantified health benefits of active transportation can outweigh any risks associated with the activities by as much as 77 to 1, and add more years to our lives than are lost from inhaled air pollution and traffic injuries.
- Between 1966 and 2009, the number of children who bicycled or walked to school fell 75%, while the percentage of obese children rose 276%.
- Bicycling to work significantly reduces absenteeism due to illness. Regular bicyclists took 7.4 sick days per year, while non-bicyclists took 8.7 sick days per year.

The economic benefits of bicycling and walking include:

- Bicycling and walking projects create 8–12 jobs per \$1 million spent, compared to just 7 jobs created per \$1 million spent on highway projects.
- Cost benefit analyses show that up to \$11.80 in benefits can be gained for every \$1 invested in bicycling and walking.

National bicycling trends:

- There has been a gradual trend of increasing bicycling and walking to work since 2005.
- Infrastructure to support biking communities is becoming more commonly funded in communities.
- Bike share systems, making bicycles available to the public for low-cost, short-term use, have been sweeping the nation since 2010. Twenty of the most populous U.S. cities have a functional bike share system.

In November 2013, the Institute for Transportation & Development Policy published a Standard for Transportation Oriented Design, with accessible performance objectives and metrics, to help municipalities, developers, and local residents design land use and built environment, “to support, facilitate, and prioritize not only the use of public transport, but the most basic modes of transport, walking, and cycling.” The TOD Standard, along with its performance objectives and scoring metrics, can be found at www.itdp.org/documents/TOD_v2_FINAL.pdf.²⁹

²⁹“TOD Standard, Version 2.0,” Institute for Transportation & Development Policy, November 2013, http://www.itdp.org/documents/TOD_v2_FINAL.pdf.

Trails and Health

That a connected system of trails increases the level of physical activity in a community has been scientifically demonstrated through the Trails for Health initiative of the (CDC).³⁰ Trails can provide a wide variety of opportunities for being physically active, such as walking/running/hiking, rollerblading, wheelchair recreation, bicycling, cross-country skiing and snowshoeing, fishing, hunting, and horseback riding. Recognizing that active use of trails for positive health outcomes is an excellent way to encourage people to adopt healthy lifestyle changes, American Trails has launched a “Health and Trails” resource section in its website: www.americantrails.org/resources/benefits/.

The health benefits are equally as high for trails in urban neighborhoods as for those in state or national parks. A trail in the neighborhood, creating a “linear park,” makes it easier for people to incorporate exercise into their daily routines, whether for recreation or non-motorized transportation. Urban trails need to connect people to places they want to go, such as schools, transit centers, businesses, and neighborhoods.³¹

Shade Structures

Communities around the country are considering adding shade structures as well as shade trees to their parks, playgrounds, and pools as, “...a weapon against cancer and against childhood obesity”;³² both to reduce future cancer risk and promote exercise among children. A 2005 study found that melanoma rates in people under 20 rose three percent a year between 1973 and 2001, possibly due to a thinning of the ozone layer in the atmosphere. It is recommended that children seek shade between 10 a.m. and 4 p.m., but with so little shade available, kids have nowhere to go. Additionally, without adequate shade, many play areas are simply too hot to be inviting to children. On sunny days, the playground equipment is hot enough to scald the hands of would-be users.



Trees would help, as tree leaves absorb about 95 percent of ultraviolet radiation, but they take a decade or more to grow large enough to make a difference. So, many communities are building shade structures instead. The non-profit Shade Foundation of America is a good resource for information about shade and shade structures, www.shadefoundation.org.

³⁰ “Guide to Community Preventive Services” Centers for Disease Control and Prevention (CDC), <http://www.thecommunityguide.org/index.html>

³¹ “Health Community: What you should know about trail building,” National Trails Training Partnership: Health and Fitness, <http://www.americantrails.org/resources/health/healthcombuild.html>, accessed on May 24, 2013.

³² Liz Szabo, “Shade: A weapon against skin cancer, childhood obesity,” USA Today, June 30, 2011, usatoday.30.usatoday.com/news/health/wellness/story/2011/06/Shade-serves-as-a-weapon-against-skin-cancer-childhood-obesity/48965070/1, accessed 5/23/2013.

Natural Environments and Open Space

Conservation

The top ten recommendations of the National Recreation and Parks Association (NRPA) Conservation Task Force were published in the November 2011 issue of *Parks and Recreation* magazine.³³ These recommendations are a compilation of best practices used by trendsetting agencies.

- 1) Take a leadership role in the community to promote conservation. Park and recreation agencies have a unique opportunity to bring governmental agencies, non-profit organizations, community leaders, and the public together for the cause of working together on community wide conservation objectives – clean water, wildlife habitat preservation, reducing energy use, and improving environmental quality. Park and recreation agencies must lead the way in promoting conservation to diverse and underserved audiences.
- 2) Lead by example in employing best management conservation practices in parks. Park and recreation agencies should become the catalyst in the community for conservation by showing how best practices can be adopted – not mowing what you don't need to mow; stopping wasteful energy consumption; and reducing pesticide use for example. Show the public how conservation practices can benefit everyone.
- 3) Engage volunteers in conservation and stewardship. Create a sense of belonging and stewardship for parks by creating a personal sense of ownership and value. Enable people to identify with their parks and natural resources, and to care about their future. Sustain stewardship by creating meaningful public participation in implementation of conservation principles and practices.
- 4) Establish a strategic land acquisition strategy based on knowledge and awareness of significant natural and cultural resources (watershed protection, unique ecological characteristics, and sensitive natural areas deserving protection). As the largest owners of public land within most communities, park and recreation agencies should lead the way in developing a strategic vision for preserving open space and conserving important landscapes and natural features.
- 5) Engage youth in conservation. Get kids and teens outdoors and enjoying their parks. The experience of nature is inherently rewarding for youth. Set as a goal to connect kids in the community to nature and the outdoors. Children and youth will be fascinated by nature and will develop a lifelong affinity as well as a conservation ethic if they have early opportunities to enjoy nature and recreate outdoors in a safe, rewarding way.
- 6) Conserve energy in all ways. Park and recreation agencies must lead by example, showing the public how and why they should adopt practices that they can see demonstrated in parks and recreation facilities. Park and recreation agencies should adopt energy conservation measures that make sense and save public taxpayer funds.

³³ "Conservation Leaders in our Communities," National Recreation and Parks Association (NRPA), *Parks & Recreation Magazine*, November 2011, p. 85-101, <http://ezine.parksandrecreation.org/HTML5/NRPA-Parks-Recreation-Magazine-November-2011>.

- 7) Protect natural resources in parks and in the community. A core mission of public parks is to protect land and water resources and to be stewards of natural resources. This means committing personnel and resources to protect natural and cultural resources and creating sustainable long-term methods of funding this conservation mission. Parks and recreation agencies are entrusted with some of the most important public assets of a community and the conservation and long-term protection of this public trust is and should be a core component of every parks and recreation agency's mission.
- 8) Create sustainable landscapes that demonstrate principles of conservation. Utilize sustainable landscape practices to save taxpayer funds, to measurably improve conservation benefits, and to educate the public about conservation. For example, agencies can reduce turf grass and mowing frequency; replace turf with native plants; manage floodplains for multiple uses including conservation and public recreation; enhance wetlands for water filtration and groundwater recharge; plant model landscapes of drought tolerant native plants adapted to climate and culture; and promote parks as food sources through edible landscapes and community gardens.
- 9) Forge partnerships that foster the mission of conservation. The greatest and most beneficial conservation successes most often occur as a result of collaboration. Park and recreation agencies should partner with non-profit and community service organizations, universities and colleges, school systems, other governmental agencies, and non-traditional partners for conservation outcomes. Promote health, education, and other goals while working toward a common mission of conservation.
- 10) Utilize technology to promote conservation. Parks and recreation agencies need to embrace technology to promote conservation. This is not only in applications such as GIS (geographic information systems), but in utilizing social media to engage the public, especially youth. Technology is not to be feared as something that detracts from the conservation mission of parks agencies, but rather it is to be accepted as a means of sharing knowledge and connecting people to conservation and stewardship.

Economic and Health Benefits of Parks

There are numerous economic and health benefits of parks, including the following:

- Trails, parks, and playgrounds are among the five most important community amenities considered when selecting a home.
- Research from the University of Illinois shows that trees, parks, and green spaces have a profound impact on people's health and mental outlook.³⁴
- U.S. Forest Service research indicates that when the economic benefits produced by trees are assessed, the total value can be two to six times the cost for tree planting and care.³⁵
- Fifty percent of Americans regard outdoor activities as their main source of exercise.³⁶

³⁴ F.E. Kuo, "Environment and Crime in the Inner City: Does Vegetation Reduce Crime?," *Environment and Behavior*, Volume 33, p. 343-367.

³⁵ Nowak, David J., "Benefits of Community Trees," (Brooklyn Trees, USDA Forest Service General Technical Report, in review).

³⁶ *Outdoor Recreation Participation Report 2010*, Outdoor Foundation, 2010.

“The Benefits of Parks: Why America Needs More City Parks and Open Space,” a report from the Trust for Public Land, makes the following observations about the health, economic, environmental, and social benefits of parks and open space:³⁷

- Physical activity makes people healthier.
- Physical activity increases with access to parks.
- Contact with the natural world improves physical and psychological health.
- Residential and commercial property values increase.
- Value is added to community and economic development sustainability.
- Benefits of tourism are enhanced.
- Trees are effective in improving air quality and act as natural air conditioners.
- Trees assist with storm water control and erosion.
- Crime and juvenile delinquency are reduced.
- Recreational opportunities for all ages are provided.
- Stable neighborhoods and strong communities are created.

Researchers have long touted the benefits of outdoor exercise. According to a study published in the *Journal of Environmental Science and Technology* by the University of Essex in the United Kingdom, “as little as five minutes of green exercise improves both mood and self-esteem.”³⁸

The United States is now catching up on this trend, as parks and recreation departments have begun installing “outdoor gyms.” Equipment that can be found in these outdoor gyms is comparable to what would be found in an indoor workout facility, such as leg and chest presses, elliptical trainers, pull down trainers, etc. With no additional equipment such as weights and resistance bands, the equipment is fairly easy to install. Outdoor fitness equipment provides a new opportunity for parks and recreation departments to increase the health of their communities, while offering them the opportunity to exercise outdoors. Such equipment can increase the usage of parks, trails, and other outdoor amenities while helping to fight the obesity epidemic and increase the community’s interaction with nature.

Nature Programming

Noted as early as 2003 in *Recreation Management* magazine, parks agencies have been seeing an increase in interest in environmental-oriented “back to nature” programs. In 2007, the National Recreation and Park Association (NRPA) sent out a survey to member agencies in order to learn more about the programs and facilities that public parks and recreation agencies provide to connect children and their families with nature.³⁹ A summary of the results follows.

³⁷ Paul M. Sherer, “The Benefits of Parks: Why America Needs More City Parks and Open Space,” The Trust for Public Land, San Francisco, CA, 2006.

³⁸ Cited in: Sally Russell, “Nature Break: Five Minutes of Green Nurture,” Green Nurture Blog, <http://blog.greennurture.com/tag/journal-of-environmental-science-and-technology>, accessed November 14, 2012.

³⁹ “NRPA Completes Agency Survey Regarding Children and Nature,” National Recreation and Parks Association (NRPA), http://www.narpp.org/assets/Library/Children_in_Nature/nrpa_survey_regarding_children_and_nature_2007.pdf, April 2007.

- Sixty-eight percent (68%) of public parks and recreation agencies offer nature-based programming, and 61% have nature-based facilities.
- The most common programs include nature hikes, nature-oriented arts and crafts, fishing-related events, and nature-based education in cooperation with local schools.
- When asked to describe the elements that directly contribute to their most successful programs, agencies listed staff training as most important followed by program content and number of staff/staff training.
- When asked what resources would be needed most to expand programming, additional staff was most important followed by funding.
- Of the agencies that do not currently offer nature-based programming, 90 percent indicated that they want to in the future. Additional staff and funding were again the most important resources these agencies would need going forward.
- The most common facilities include: nature parks/preserves, self-guided nature trails, outdoor classrooms, and nature centers.
- When asked to describe the elements that directly contribute to their most successful facilities, agencies listed funding as most important followed by presence of wildlife and community support.
- Figures from the Association for Interpretative Naturalists, a national group of nature professionals, demonstrate that nature-based programs are on the rise. According to Tim Merriman, the association's Executive Director, the group was founded in 1954 with 40 members. It now boasts 4,800 members, with research indicating that about 20,000 paid interpreters are working nationally, along with an army of more than 500,000 unpaid volunteers staffing nature programs at parks, zoos, and museums. The growth of these programs is thought to come from replacing grandparents as the teacher about the "great outdoors." It is also speculated that a return to natural roots and renewed interest in life's basic elements was spurred as a response to the events of September 11, 2001.⁴⁰

"There's a direct link between a lack of exposure to nature and higher rates of attention-deficit disorder, obesity, and depression. In essence, parks and recreation agencies can and are becoming the 'preferred provider' for offering this preventative healthcare."

– **Fran P. Mainella**, former director of the National Park Service and Instructor at Clemson University

In his book, Last Child in the Woods: Saving Children from Nature Deficit Disorder,⁴¹ Richard Louv introduced the concept of the restorative qualities of being out in nature, for both children and adults. This concept, and research in support of it, has led to a growing movement promoting connections with nature in daily life. One manifestation of this is the development of Nature Explore Classrooms in parks. Nature Explore⁴² is a collaborative program of the Arbor Day Foundation and the non-profit organization Dimensions Educational Research Foundation, with a mission of helping children and families develop a profound engagement with the natural world, where nature is an integral, joyful part of children's daily learning.

⁴⁰ Margaret Ahrweiler, "Call of the Wild – From Beautiful Blossoms to Bugs and Guts, Nature Programs Are Growing as People Return to Their Roots," *Recreation Management*, <http://recmanagement.com/200310fe04.php>, October 2003.

⁴¹ Richard Louv, Last Child in the Woods: Saving Children from Nature Deficit Disorder, Algonquin Books of Chapel Hill, North Carolina, 2005.

⁴² "What is the Nature Explore Program," http://www.arborday.org/explore/documents/NE_FAQ_002.pdf, accessed August 12, 2012.

Nature Explore works to support efforts to connect children with nature. More recently, Scott Sampson advanced the cause in a book entitled, How to Raise a Wild Child: The Art and Science of Falling in Love with Nature.⁴³ Citing research supporting his case that connecting with nature is vital to the healthy development of individuals, communities, and the world, Sampson offers practical and helpful advice to parents, educators, and any other would-be nature mentors to kids.

Riparian and Watershed Best Practices

The ability to detect trends and monitor attributes in watershed and/or riparian areas allows planners opportunities to evaluate the effectiveness of their management plan. By monitoring their own trends, Planners can also identify changes in resource conditions that are the result of pressures beyond their control. Trend detection requires a commitment to long-term monitoring of riparian areas and vegetation attributes.

The United States Environmental Protection Agency (EPA) suggests the following steps to building an effective watershed management plan. See water.epa.gov⁴⁴ for more information from the EPA.

- Build partnerships
- Characterize the watershed
- Set goals and identify solutions
- Design and implementation program
- Implement the watershed plan
- Measure progress and make adjustments

Sports and Recreation Trends

General Sports and Recreation Trends

The National Sporting Goods Association (NSGA) survey on sports participation⁴⁵ found that, in 2014, the top five athletic activities ranked by total participation included exercise walking, exercising with equipment, swimming, aerobic exercising, and running/jogging. Additionally, the following active, organized, or skill development activities remain popular: hiking, bicycle riding, basketball, golf, and soccer.

The sports segment that saw the highest percentage increase was the open water segment with a 2.7 percent increase. This increase was driven significantly by boating (motor/power), canoeing, and kayaking activities. The individual sports/activity segment experiences the highest decrease (-2.6%) driven by a decrease in bowling, golf and tennis. **Table 7** outlines the top 20 sports ranked by total participation in 2014.

⁴³ Scott D. Simpson, How to Raise a Wild Child: The Art and Science of Falling in Love with Nature, Houghton Mifflin Harcourt, New York, N.Y., 2015.

⁴⁴ "Implement the Watershed Plan – Implement Management Strategies," U.S. Environmental Protection Agency, <http://water.epa.gov/type/watersheds/datait/watershedcentral/plan2.cfm>.

⁴⁵ "2014 Sport/Recreation Activity Participation," National Sporting Goods Association, 2015. <http://www.nsga.org>.

Table 7: Top 20 Sports Ranked by Total Participation (in millions) in 2014

Sport	Total
1. Exercise walking	104.3
2. Exercising with equipment	55.1
3. Swimming	45.9
4. Aerobic exercising	44.2
5. Running/jogging	43.0
6. Hiking	41.1
7. Camping (vacation/overnight)	39.5
8. Workout at club/gym/fitness studio	35.9
9. Bicycle riding	35.6
10. Bowling	34.4
11. Weightlifting	34.0
12. Fishing (freshwater)	29.4
13. Yoga	29.2
14. Basketball	23.7
15. Billiards/pool	20.8
16. Target shooting (live ammunition)	20.4
17. Golf	18.4
18. Hunting with firearms	17.5
19. Boating, motor/power	14.1
20. Soccer	13.4

Source: NSGA 2015

The Sports & Fitness Industry Association (SFIA) produces a report on sports, fitness, and leisure activities in the United States. The following findings were highlighted in the 2013 report:⁴⁶

- Overall participation in sports, fitness, and related physical activities remained relatively steady from 2011 to 2012.
- Fitness sports had the largest increase in participation (2% increase to 61.1%).
- Racquet sports participation also increased (1% increase to 12.8%), but the peak rate of 14% remains from 2008.
- Both team (21.6%) and water sports (12.5%) participation increased slightly, while individual (36%) and winter sports (6.6%) participation decreased slightly.
- Outdoor sports participation remained stable at around 49%.
- Spending on team sports at school and lessons/instruction/sports camp was projected to increase in 2013 as it did in 2011 and 2012.
- Twenty-eight percent (28%) of all Americans are inactive, while 33% are active to a healthy level (engaged in high-calorie-level sport/fitness activities in a frequent basis).

⁴⁶ 2012 Sports, Fitness and Leisure Activities Topline Participation Report, Sporting Goods Manufacturers Association (now Sports and Fitness Industry Association), <http://www.sfia.org/reports/all/>.

Outdoor Recreation

The Outdoor Foundation releases a “Participation in Outdoor Recreation Report” annually. According to the 2015 Topline Report,⁴⁷ both the total number of outdoor outings and number of participants dropped in 2014, with extreme weather and an unusually cold winter likely contributing to the decline. Bright spots in outdoor participation include paddle sports, with stand up paddle boarding remaining the top outdoor activity for growth, growing in participation by 38 percent from 2013 to 2014. Participation in snow sports, including telemarking, snowshoeing, freestyle skiing, and cross-country skiing, grew significantly as well.

The foundation reports that the top outdoor activities for adults in 2014 were running, fishing, bicycling, hiking, and camping. Birdwatching and wildlife viewing are also among the favorite adult outdoor activities by frequency of participation. The Outdoor Foundation’s research brought the following key findings for the 2014 “Outdoor Recreation Report.”

Participation in Outdoor Recreation

- Return to nature: Nearly 50 percent of Americans ages 6 and older participated in outdoor recreation in 2013. That equates to a total of 143 million.
- Top five participation percentage increase in outdoor activities in the past three years (2014 Topline Report): Adventure racing, triathlon (off-road), stand-up paddle boarding, kayak fishing, and recreational kayaking.
- Recreation for exercise: More than 70 percent of outdoor participants were motivated to recreate outdoors as a way of getting exercise.

Youth Participation in Outdoor Recreation

- Good news about outdoor participation rates of female youth: Participation rates among girls and young women increased by two percentage points – bringing young women’s participation to the highest since 2006.
- The influence of family: Most youth are introduced to outdoor activities by parents, friends, family, and relatives.
- Physical education in schools: The importance cannot be understated. Among adults ages 18 and older who are current outdoor participants, 74 percent say they had physical education in school between the ages of 6 and 12.

The Outdoor Foundation’s 2015 “Topline Outdoor Recreation Participation Report” lists the most popular (by participation rate) and favorite (by frequency of participation) outdoor activities for youth ages 6-17.

Most Popular Outdoor Activities (ages 6—17)

1. Road, mountain, and BMX biking (27% of American youth participating)
2. Running, jogging, and trail running (24%)
3. Freshwater, saltwater, and fly fishing (21%)
4. Car, backyard, backpacking, and RV camping (20%)
5. Hiking (12%)

⁴⁷ “Outdoor Recreation Participation Topline Report 2015,” Outdoor Foundation, 2015.

Favorite Outdoor Activities (ages 6—17)

1. Running, jogging, and trail running (77 average outings per runner)
2. Road, mountain, and BMX biking (65 average outings per cyclist)
3. Skateboarding (53 average outings per skateboarder)
4. Freshwater, saltwater, and fly fishing (15 average outings per fishing participant)
5. Car, backyard, backpacking, and RV camping (15 average outings per camper)

Outdoor recreation trends are also a recurring topic of study by the United States Forest Service through the Internet Research Information Series (IRIS). An IRIS report dated January 2012⁴⁸ provides the following recent nature-based outdoor recreation trends: Participation in walking for pleasure and family gatherings outdoors were the two most popular activities for the U.S. population as a whole. These outdoor activities were followed closely in popularity by viewing/photographing wildlife, boating, fishing, snow/ice activities, and swimming. There has been a growing momentum in participation in sightseeing, birding, and wildlife watching in recent years.

Trail Recreation and Cycling Trends

For trail-related recreation activities such as hiking, bicycling, and running, the 2015 “Outdoor Recreation Topline Report” indicates a positive three-year trend for trail running, running/jogging, hiking, mountain biking, and BMX biking. Additionally, participation in trail running and BMX biking is up significantly over the recent three-year period.

Table 8: Trail Recreation Participation by Activity (in thousands) (6 years of age or older)

	2009	2010	2011	2012	2013	2014	3 Year Average Change
BMX Bicycling	1,811	2,369	1,547	2,175	2,168	2,350	16.2%
Bicycling (Mountain/Non-Paved Surface)	7,142	7,161	6,816	7,714	8,542	8,044	6.0%
Bicycling (Road/Paved Surface)	40,140	39,320	40,349	39,232	40,888	39,725	-0.5%
Hiking (Day)	32,572	32,496	34,491	34,545	34,378	36,222	1.7%
Running/Jogging	49,408	50,713	52,187	54,188	51,127	49,408	0.4%
Trail Running	4,833	5,136	5,610	6,003	6,792	7,531	10.3%

Source: Outdoor Foundation 2015.

⁴⁸ “Recent Outdoor Recreation Trends,” USDA Forest Service Internet Research Information Series (IRIS) Research Brief, January 2012, <http://warnell.forestry.uga.edu/nrrt/nsre/IRISRec/IRISRec23rpt.pdf>, accessed August, 2012.

Other Cycling Trends

- Bicycle touring is becoming a fast-growing trend around the world, including the United States and Canada. “Travelers are seeking out bike tours to stay active, minimize environmental impact, and experience diverse landscapes and cityscapes at a closer level.”⁴⁹
- Urban bike tours, popular in cycle-friendly cities in Europe, are taking hold in the United States as well. Bikes and Hikes LA, an eco-friendly bike and hike sightseeing company founded in September 2014, offers visitors the opportunity to “see the city’s great outdoors while getting a good workout.” In New York, a hotel and a bike store are partnered to offer guests cruisers to explore the city during the summer of 2014.⁵⁰
- One of the newest trends in adventure cycling is “fat bike,” multiple speed bikes that are made to ride where other bikes can’t be ridden, with tires that are up to 5 inches wide run at low pressure for extra traction. Most fat bikes are used to ride on snow, but they are also very effective for riding on any loose surface like sand or mud. They also work well on most rough terrain or just riding through the woods. This bike offers unique opportunities to experience nature in ways that wouldn’t be possible otherwise.⁵¹

Role and Response of Local Government

Collectively, these trends have created profound implications for the way local governments conduct business. Some local governments are now accepting the role of providing preventative health care through parks and recreation services. The following concepts are from the International County/County Management Association.⁵²

- Parks and recreation departments should take the lead in developing communities conducive to active living.
- There is growing support for recreation programs that encourage active living within their community.
- One of the highest priorities is a cohesive system of parks and trails and accessible neighborhood parks.

In summary, the United States, its states, and its communities share the enormous task of reducing the health and economic burden of obesity. While numerous programs, policies, and products have been designed to address the problem, there is no magic bullet to make it go away. The role of public parks and recreation as a health promotion and prevention agency has come of age. What matters is refocusing its efforts to insure the health, well-being, and economic prosperity of communities and citizens.

⁴⁹ Hope Nardini, “Bike Tourism a Rising Trend,” *Ethic Traveler*, <http://www.ethicaltraveler.org/2012/08/bike-tourism-a-rising-trend/>, accessed March 24, 2014.

⁵⁰ Michelle Baran, “New Trend: Urban Bike Tours in Los Angeles and New York,” *Budget Travel Blog*, <http://www.budgettravel.com/blog/new-trend-urban-bike-tours-in-los-angeles-and-new-york,11772/>, accessed March 24, 2014.

⁵¹ Steven Pease, “Fat Bikes, How to Get the Most out of Winter Cycling,” *Minnesota Cycling Examiner*, <http://www.examiner.com/article/fat-bikes-the-latest-trend-adventure-cycling>, February 1, 2014.

⁵² www.ICMA.org, accessed in 2012.

Administration Trends for Recreation and Parks

Municipal parks and recreation structures and delivery systems have changed, and more alternative methods of delivering services are emerging. Certain services are being contracted out and cooperative agreements with non-profit groups and other public institutions are being developed. Newer partners include the health system, social services, justice system, education, the corporate sector, and community service agencies. These partnerships reflect both a broader interpretation of the mandate of parks and recreation agencies and the increased willingness of other sectors to work together to address community issues. The relationship with health agencies is vital in promoting wellness.

The traditional relationship with education and the sharing of facilities through joint-use agreements is evolving into cooperative planning and programming aimed at addressing youth inactivity levels and community needs.

Listed below are additional administrative national trends:

- Level of subsidy for programs is lessening and more “enterprise” activities are being developed, thereby allowing subsidy to be used where deemed appropriate.
- Information technology allows for better tracking and reporting.
- Pricing is often determined by peak, off-peak, and off-season rates.
- More agencies are partnering with private, public, and non-profit groups.

Americans with Disabilities Act (ADA) Compliance

On September 14, 2010 the U.S. Department of Justice (DOJ) issued an amended regulation implementing the Americans with Disabilities Act (ADA 2010 Standards),⁵³ and for the first time, the regulations were expanded to include recreation environment design requirements. Covered entities were to be compliant with design and construction requirements and the development of three-year transition plan by March 15, 2012. The deadline for implementation of the three-year transition plan was March 15, 2015.

Therapeutic Recreation

Inclusion is not to be confused with therapeutic recreation, which is the provision of *treatment services* and the provision of *recreation services* to persons with illnesses or disabling conditions. The primary purposes of treatment services which are often referred to as recreational therapy, are to restore, remediate or rehabilitate in order to improve functioning and independence as well as reduce or eliminate the effects of illness or disability. The primary purposes of recreational services are to provide recreation resources and opportunities in order to improve health and well-being.

Another trend is the renewed focus on serving people with psychiatric disabilities. In 2004, The National Council on Disability (NCD) issued a comprehensive report, “Livable Communities for Adults with Disabilities.” Among the elements identified in this report for improving the quality of life for all citizens, including children, youth, and adults with disabilities are adjustments to the physical environment for inclusiveness and accessibility, as well as the encouragement of participation in civic, cultural, social, and recreational activities

⁵³ U.S. Department of Justice, Americans with Disabilities Act, ADA Home Page, <http://www.ada.gov/>, accessed November 15, 2012.

The right to enjoy services and programs offered to all members by both public and private entities is the essence of the elements. Unlike persons with physical disabilities, people with psychiatric disabilities face attitudinal barriers of those around them. Policies, programs, and beliefs about psychiatric disabilities exemplify attitudinal barriers. Fortunately, the mental health system is moving toward a model based on recovery. This model believes that everyone with a mental health diagnosis is able and capable of living independently within the community with supports.

Funding

According to *Recreation Management* magazine's 2015 "State of the Industry Report," survey respondents from parks and recreation departments/districts reporting about their revenues from 2012 through 2014 indicated a continued recovery from the impact of the Recession of 2008. From 2013 to 2014, 44.1 percent of respondents reported that their revenues had either had increased and another 44.1 percent reported revenues staying steady. About 48.7 percent of respondents said they expected revenues to continue to increase in 2015, while 44 percent expected no change.

Trends in Marketing by Parks and Recreation Providers

The concept of marketing is rapidly evolving with the changing of technology and social media outlets. Every successful business from start-ups to corporations uses some form of marketing to promote their products and services. For parks and recreation, it can be difficult to stay current with the trends when the "formula for success" hasn't yet been defined for non-profits and governments.

Municipalities can use marketing to increase awareness of an issue, promote an upcoming program, encourage community participation, or to gain advocacy for a public service. Active Network offers expertise in activity and participation management. Its mission is to make the world a more active place. In their blog, they offered the following marketing mix ideas which came out of a meeting with park and recreational professionals in the Chicago area.⁵⁴

- Updated booths and community event presence—Bring a tablet or laptop to show programs you offer and provide event participants the opportunity to register on the spot.
- Facebook redirect app—This application redirects people automatically to the link you provide. Add it to your Facebook page.
- Instagram challenge—Think about how you can use mobile and social tools at your next event. It could be an Instagram contest during an event set up as a scavenger hunt with participants taking pictures of clues and posting them on Instagram.
- Social media coupons—Research indicates that the top reason people follow an organization on a social network is to receive discounts or coupons. Consider posting an event discount on your social networks redeemable by accessing on phone or printing out.

Mobile marketing is a growing trend. Social websites and apps are among the most used features on mobile phones. Popular social media marketing tools include Facebook, SocialWhirled, Twitter, YouTube, Instagram, Pinterest, and LinkedIn. Private messaging apps such as Snapchat and WhatsApp are being used more and more for live media coverage.⁵⁵

⁵⁴ <http://www.activenetwork.com/blog/17-marketing-campaigns-parks-and-recreation-marketing/>, May 2013, accessed February 26, 2015.

⁵⁵ Jacqueline Woerner, "The 7 Social Media Trends Dominating 2015," Emarsys Blog, <http://www.emarsys.com/en/resources/blog/the-7-social-media-trends-dominating-2015/>, accessed February 26, 2015.

Ninety-one percent (91%) of Americans own a cell phone and most use the devices for much more than phone calls. Young adults engage in mobile data applications at much higher rates than adults in age brackets 30 and older. Usage rates of mobile applications demonstrate that chronologically across four major age cohorts, Millennials tend to get information more frequently using mobile devices such as smartphones. For example, 97 percent of cell phone owners ages 18–29 send and receive text messages, compared to 94 percent of ages 30–49, 75% of ages 50–64, and 35 percent of those 65 and older.

Minority Americans are significantly more likely to own a cell phone than are their white counterparts. (87 percent of African Americans and 87 percent of Hispanics own a cell phone, compared with 80 percent of whites). Minority Americans also lead the way when it comes to mobile Internet access. Two-thirds of African Americans (72%) and Hispanics (67%) access the Internet in their cell phones, compared to Non-Hispanic Whites (56%).⁵⁶ By 2015, mobile Internet penetration is expected to have grown to 71.1 percent for Hispanics compared to 58.8 percent for whites.⁵⁷

Community and Stakeholder Input

User groups and interested citizens were engaged with sufficient and meaningful mechanisms to allow for frank and open discussions about the current state and the future of recreation programming, parks, pools, and related amenities of the PRCF. The process included face-to-face meetings in focus groups and a public forum. The results of the focus groups were presented to the public forum and additional input was received. In addition, provision was made to gather information through the department's web site.

Focus groups were held on January 6 and 7, 2015; approximately 60 individuals participated in six meetings scheduled throughout the two days for participant convenience. Representatives from Department staff were also present in the sessions. In addition, the questions asked of the attendees were also posted on the department's web site and comments were requested. An additional 133 individuals took advantage of this offer.

The following is an overview of the Stafford County community opinions in regards to strengths, weaknesses, and opportunities and visions for the future of PRCF.

⁵⁶ Maeve Duggan, "Cell Phone Activities 2013," Pew Internet and American Life Project, Pew Research Center, September 16, 2013, http://www.pewinternet.org/files/old-media/Files/Reports/2013/PIP_Cell%20Phone%20Activities%20May%202013.pdf, accessed November 15, 2012.

⁵⁷ Erik Sass, "Minority Groups Heaviest Users of Mobile Net," *Media Daily News*, Nov. 18, 2011, <http://www.mediapost.com/publications/article/162699/minority-groups-heaviest-users-of-mobile-net.html#axzz2CK9zYGFw>, accessed November 15, 2012.

Focus Groups

Focus group meeting participants were asked a series of questions in regard to the programs and facilities offered by PRCF in Stafford County. Responses to questions about the current conditions and issues/needs/problems that the Department can address are in the boxes that follow.

In order to get a feel for the groups that were providing input, the respondents were asked how long they had been a resident of Stafford County or if not a resident, did they use the offerings of the PRCF.

LENGTH OF RESIDENCE		
FOCUS GROUP	YEARS	WEBSITE
8%	< 5	35%
8%	5 – 9	21%
18%	10 – 19	19%
31%	> 20	17%
7%	Not a resident	7%

As part of the process, the meeting attendees and web responders were asked to rate several items on a 1 to 5 Likert scale with **1** representing **Poor**, **2** for **Fair**, **3** for **Good**, **4** for **Very Good** and **5** for **Excellent**.

CITIZEN SATISFACTION	
Customer Service:	Average score 4.1
Overall quality of Programs:	Average score 4.1
Overall quality of Maintenance:	Average Score 3.9
Quality of Parks/Facilities:	Average Score 3.9
Seeks feedback from Community:	Average Score 3.2

Strengths and Weaknesses

The first set of questions posed to the participants explored the general impressions of the strength and weaknesses of the department. The strengths and weaknesses are listed below and reflect the most mentioned items:

STRENGTHS

- Diversity of programs for all ages
- Dedicated caring and helpful staff
- Senior programs
- Children's activities and youth athletics
- Programs are affordable
- Clean, well maintained parks
- Gymnastics program
- Customer service
- Summer camps
- Good instructors and coaches
- Online registration

WEAKNESSES

- Gymnastics facility inadequate
- Old, overcrowded, and outdated facilities
- Senior Center – do not displace seniors
- Registration process inconsistent, confusing
- Webpage confusing to navigate
- Understaffed sports division
- Lack communication regarding feedback – The public wants to know decisions
- Lack of non-sports activities
- Lack of parking at facilities
- Not keeping pace with growth
- No real recreation center
- Pool restrooms inadequate
- Lack of shade structures
- Lack of bike/running opportunities
- Lack of resources for the financially challenged

Programs and Facilities

Programs

The groups were then asked about additional programs or activities they feel the Department should offer that are currently not available, and about improvements to existing facilities.

ADDITIONAL PROGRAMS OR ACTIVITIES

- Field hockey
- Expand senior program: non-working hours, outdoors, for singles
- More swimming opportunities at an affordable rate
- Non-sports activities
- Foreign language for kids and teens
- More homeschool activities
- Coordinate programs with school hours – provide some later start times
- Adult enrichment classes: foreign language, music, art, crafts, painting
- USTA Quick Start Tennis Program
- Dance
- Life skills class: cooking, summer job know-how, sewing, youth fire-arm safety
- Running and hiking places
- Skateboarding and all wheels activities
- Golf: First tee program for youth
- Sports classes for children under five

Facilities

IMPROVEMENTS TO EXISTING FACILITIES

- Improve gymnastics facility
- Woodlands Pool upgrade including dressing rooms
- Loop walking/jogging trails
- Parking at parks and facilities
- Restrooms at multiple locations
- Storage at all facilities
- Curtis Park Pool upgrade – add waterslide
- Upgrades to vehicle circulation
- Activity and security lighting
- Potable water fountains in parks that also accommodate dogs
- Add shade structures or trees at multiple locations
- Updated playgrounds
- Picnic tables, benches

NEW FACILITIES OR AMENITIES

- Dog parks
- New gymnastics facility
- Destination playground
- Inclusive playgrounds – 100% ADA accessible
- Nature playground
- Recreation center with fitness equipment, classrooms, etc.
- Multipurpose running & biking trails
- More Pickleball courts (indoor and outdoor)
- Par 3 golf course to accommodate First Tee program
- Tennis courts – some covered, stripe to accommodate USTA Quick Start Program
- Swimming pool in the south

Underserved Populations

The next question asked was if the respondents were aware of any underserved populations in Stafford County not being served by the programs or facilities of PRCF. Several individual responses were received, with the following being most often mentioned:

UNDERSERVED POPULATIONS

- Special Needs Population
- Middle School Age
- Teens
- Homeschoolers

Stakeholders and Partners

STAKEHOLDERS AND PARTNERS

- Schools
- Local businesses – Five Guys, Sporting Goods, etc.
- Local sports organizations
- Public safety departments – Sheriff, Fire, EMT
- Quantico/Marines/Wounded Warrior Program
- Hospitals, physical therapy
- Health Department
- Health care and insurance companies
- YMCA
- Hotels
- Restaurants
- Transportation agencies
- Correctional institutions
- Senior programming organizations
- Sponsorships
- Board of Supervisors
- Stafford County Citizens
- Special Needs Agencies
- Other Stafford County Departments

Financial Considerations

The discussion in the groups then turned to financial matters, both funding the ongoing operations of the PRCF as well as financing longer-term capital improvements.

Regarding the ongoing financial support, respondents were asked how the Department should be funded. There was general agreement that the operations should be funded much as they are currently, that is, a combination of fees and tax subsidy. Where that balance is established is yet to be determined though most, if not all participants stated that the programs should remain affordable. Only one comment stood out for its specific recommendation and that was: “Salaries should be covered by County; program, facility covered by fees.”

There was support for assisting those without the financial means to participate.

ALTERNATE FUNDING SUGGESTIONS

- Non-profit fundraising
- Federal physical fitness grants
- Create a foundation
- Corporate donations
- Grants
- Individual donations
- Outside support

Regarding willingness for increased financial support for the programs and facilities of PRCF, there were several individuals in the Focus Groups who agreed with the following statement: “Yes, I would support increased financial support for parks, based on the wealth of Stafford County along with the outdated facilities and lack of new facilities.”

And two comments received from the website “I would pay more taxes for better park facilities and schools” and “Stafford needs to invest in the community, lifelong residents want to build communities and develop our children through active lifestyles; we need the amenities.

Conversely, a significant number of respondents displayed a lack of trust in the process, pointed to items promised in past bond referendums that have not yet come to fruition. The only clear consensus was that if there were to be a bond referendum, the projects, locations, costs, etc. are planned, defined and strategically promoted and communicated.

Community Values and Issues

Continuing, participants were then asked their perceptions of community values and issues as they relate to PRCF and this planning process.

Comments received from both groups were similar and included the issues and values listed here.

COMMUNITY ISSUES AND VALUES

- Economic Impact – Destination facilities and events
- Parking
- Safety
- Historical Significance – Rural heritage
- Aging population
- Activities and facilities for all ages
- Traffic – Large number of commuters
- Highly educated demographics
- Support for military families
- Balance between growth and historical past
- Family values
- Transient population
- Accessibility

Priorities

The public processes concluded with the question: “During the next 5-10 years, what are the top priorities for the Parks, Recreation & Community Facilities”? The replies to this question were consistent and are listed below:

PRIORITIES

- Gymnastics facility
- Improve and expand facilities
- Sustainability: fiscal and environmental
- Smart growth
- Stay current in activities
- Upgrade technology
- Improve webpage
- Indoor sports facility
- Improve social media marketing
- Skate park
- Utilizing volunteers more effectively
- Improve maintenance
- Keep pace with rapid growth
- Recommendations need to match Stafford County Comprehensive Plan
- Destination playground
- Additional staff
- Senior programming
- Teens programming
- Nature programs

The findings are summarized on the Key Issues Matrix, which captures all of the key issues that surfaced during the process and prioritizes them on one matrix. The key issues were placed into four categories:

- 1) Priority
- 2) Opportunity to Improve
- 3) Minor or Future Issue
- ☐ Left blank means the issue did not come up or wasn't addressed in that venue

The qualitative data planning tools used to determine the priority of key issues include:

- 1) Existing background documents
- 2) Consultant team's expertise
- 3) PRCF staff input
- 4) Public forum input

Surveys

The quantitative data planning tools used to determine the priority of the key issues include:

- 1) PRCF data including Capital Improvement Plan, Operating Budgets, and other Department related materials.
- 2) Facility Assessment and Level of Service Analysis

The key issues were organized into five areas including:

- 1) Program and Service Delivery
- 2) Facilities and Amenities
- 3) New Facilities or Components
- 4) Finance
- 5) Organizational

	 Key Issue - Rating Scale 1 - priority 2 - opportunity to improve 3 - minor or future issue blank means the issue didn't come up or wasn't addressed	Qualitative Data					Quantitative Data		Consultant's Analysis and Professional Expertise
		Background Documents	Consultant Team	Staff Input	Public Input	Leadership	PRCF Data	Facility Assessment/LOS	
									 Preliminary Discussion
Programs and Service Delivery									
Increase or Expand Programming									
Provide inclusion and adaptive programming for special needs citizens	1	1	1	1			1		Bring the agency into compliance with Title II of ADA. Create an ADA Transition Plan.
Increase teen programming emphasis and outreach		1	1	1			1		Consider creation of a Teen Council. Programs exist, reaching the age group needs
Expand variety of Senior programming		1	1	1			1		Evening/weekend programs. Socialization and active events.
Increase enrichment programming for children and adults		1	2	1			1		Additional creative arts, language, dance and music programming.
Increase non-sports programming		1	2	1			1		Expand nature programs, enrichment programs, historical interpretation, etc.
Consider Youth Sports Entry Programming such as Quick Start Tennis and 1st Tee Golf									Successful kick off of these may lead to the need additional physical resources such as a tennis complex with Quick Start layouts or par 3 golf course in the future.
Align Programming									
Align programming with demographics of the County	2	1	2						Recognize the aging population and provide appropriate programming.
Align programming with the school calendar		2	2	3			3		Coordinated start times and close observation of the school calendar.
Facilities and Amenities									
Existing Facility or Component Upgrades									
Preventive and Lifecycle Maintenance Metrics									Develop a system of updating the inventory and prioritizing ongoing maintenance of existing assets.
Continue to address ADA accessibility within all parks									
Replace inadequate facility for Gymnastics	1	1	1	1			1	1	Recognize revenues and current lease payments to finance new or improved facility.
improved parking and traffic circulation			2	1				1	Parking for peak use creates park interior traffic issues. Consider activity schedules.
Curtis Park Pool Upgrades			2	1				1	Pool amenities?
Woodlands pool improvements			1	1				1	Dressing rooms and contact station undersized.
Improve running/biking opportunities		1	1	1				1	Add Loop trails with exercise stations or pods.
Improve comfort and convenience amenities in parks	1	1	1	1				1	Drinking water, shade, restrooms, picnic tables, benches, etc. to permits longer stays at park destinations.
Additional picnic pavilions for rentals			1	1				1	Provides picnic/special event opportunities. Provides revenue potential.
improved safety and security			2	1				1	Add lighting in parking lots. Add security lighting which is lacking at many locations.
New Facilities or Components									
Replace inadequate facility for Gymnastics	1	1	1	1			1	1	Recognize revenues and current lease payments to finance new or improved facility.
Create an identity for each park location as a destination		1	2					1	Give patrons a reason to go there, stay there, return there. Historic, nature, outdoor adventure.
Additional picnic pavilions for rentals									Additional revenue potential.
Additional basketball opportunities: indoor and outdoor	1	1	1	1				1	Traditional activity popular with youth and adults.
Dog Parks	1	1	1	1			1	1	For human socialization as much as dogs.
Improve running/biking opportunities		1	1	1				1	Add Loop trails with exercise stations or pods.
Indoor activity/classroom space is required		1	1	1			1	1	To provide for the non-sport activities as well as flexibility in programming opportunities.
Restroom availability and maintenance			2	1				1	Add appropriately placed and updated facilities.
Curtis Park additions			2	1				1	Possible nature/outdoor adventure themed park?
Add or improve infrastructure to increase Nature/Historic/Cultural programming									Provides a 'park identity'.
Indoor facility for soccer/field hockey/lacrosse and winter training			3	2				2	Provides additional cold weather programming options. Provides revenue potential.
Finance									
Current Funding									
Establish user fees and assessment fee standards		1	1	1			1		Establish a cost recovery plan with fees based on costs to provide and value of the program.
Preventive Maintenance and Lifecycle Metrics									Develop a system of identifying and prioritizing maintenance of existing facilities.
Additional Funding									
Bond Issue for capital improvements	1	1	2	2			1		Promote specific projects and keep public informed.
Seek additional sponsorships, grants and donations		1	1	2			1		Diversifies revenue sources and increases community involvement. Consider creation of a Foundation.
Organizational									
Assign Therapeutic Recreation responsibilities to a single position		1	1	2			1		Coordination and guidance in ADA access and programming.
Improve marketing of services	1	1	1	1			1	1	Greater emphasis on informing the community of programs and events.
Assign responsibility for Partnerships/Sponsorships/Grants		1	1	2			1		Maintain existing relationships and seek new opportunities. Grant writing could be contracted.
Improve internal communication to include all divisions		1	1	1			1		Better integrate the Parks, Recreation and Community Facilities Divisions.
Improve operating relationship with the schools	1	1	1	1			1	1	Update the Joint Use Agreement to reflect the communities needs.
Improve staff training			1						Increases effectiveness and efficiency of the work force.

Organizational Analysis

GreenPlay broadly assessed the organizational and management structure and staffing of the Stafford County Department of Parks, Recreation and Community Facilities (PRCF) to determine effectiveness and efficiency in meeting current and future departmental responsibilities as related to the community's needs.

The Department has recently undertaken changes in the organization in order to best match some of the needs identified below as well as to maximize the available resources. There is recognition of the need to constantly and consistently examine the Department's organizational structure in order to best align its personnel with the mission of the County and Department. The recent realignments are intended to do just that and, when fully integrated, are designed to deliver improved service and response to the citizens of Stafford County.

Implementation of a structure change, regardless of the magnitude, results in new roles, responsibilities, and relationships for staff and there often exists a "ramping up to speed" for individuals in their new reporting relationships. This appears to be the case for the Department's new organization and steps are underway to improve communication and transition to the new structure. Within that structure, there are some areas that can be addressed.

The needs assessment included input from staff interviews, community and key stakeholder engagement, and a level of service analysis, along with the consultant's expertise, and has identified key organizational issues for operational enhancement:

- Improve internal and external communication to promote interdepartmental as well as intradepartmental coordination and cooperation.
- Improve the website so it is current and usable for patrons.
- Improve Online Registration that can be difficult to navigate.
- Better marketing of programs with more diverse and targeted promotions.
- Improve partnerships and agency relationships.
- Continue emphasis on implementation of the recent organization structure changes.

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis

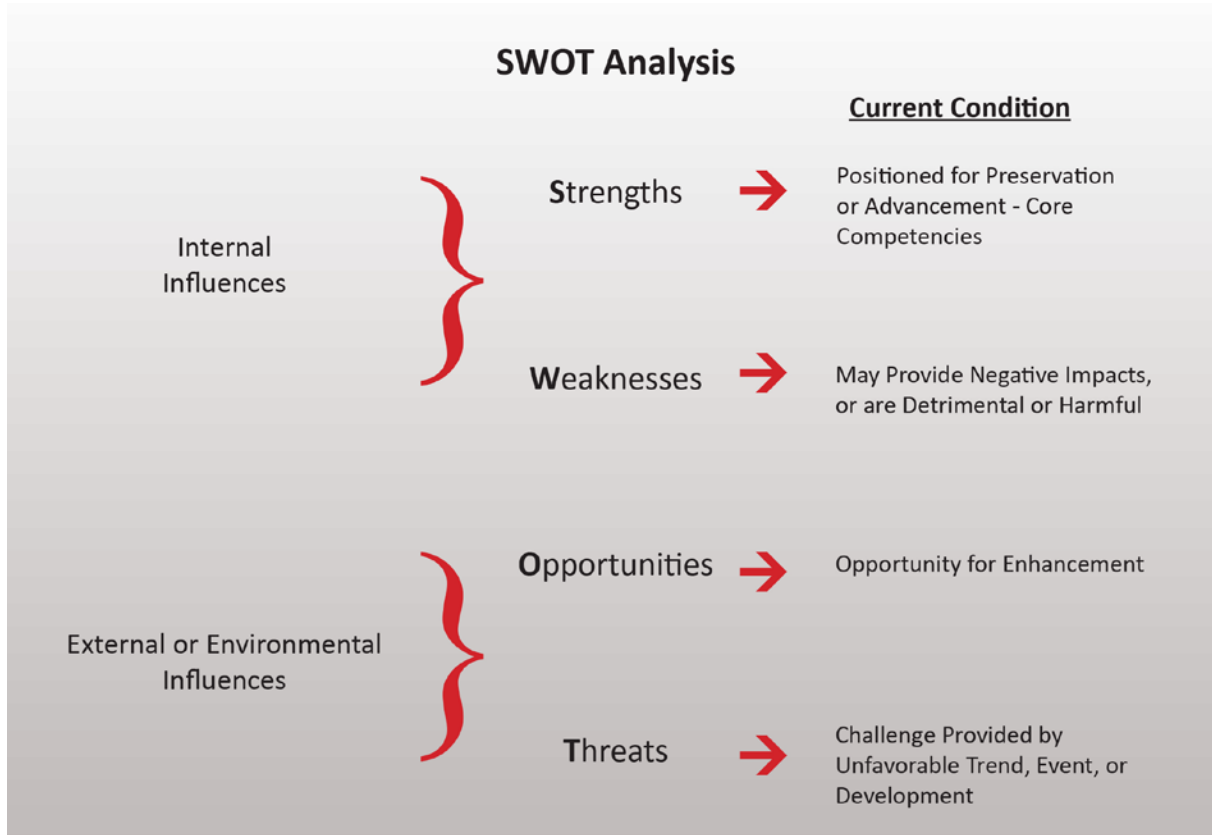
To develop a short and long-term strategy for the future planning of PRCF, a **SWOT Analysis** was conducted with the staff. A SWOT Analysis is an effective and realistic way of identifying the market **Strengths** and internal and external **Weaknesses**, and for examining the **Opportunities** and **Threats** faced by the organization. The result of this process assists in identifying deficiencies in the organization and is described below and includes definitions as well as the department's organizational results.

Definitions

SWOT Analysis: Appreciative inquiry and analysis of internal strengths and weaknesses, and external opportunities and threats. Discussion includes the why and examples.

- **Internal Strengths:** Major strengths of the department that should be capitalized upon. Strengths may include competencies in various areas.

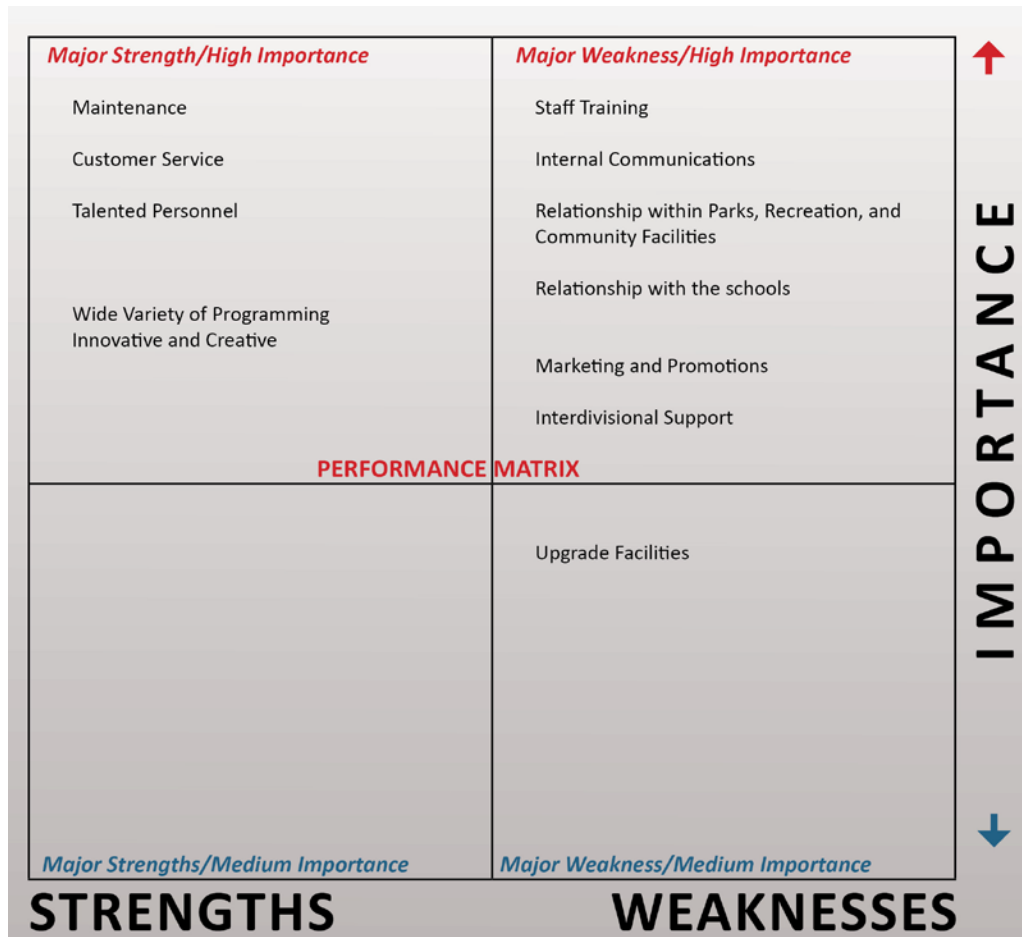
- **Internal Weaknesses:** Major weaknesses of the department that the agency has control over positively impacting, addressing, or changing. Weaknesses include any items that can be harmful, detrimental, and/or cause a negative impact.
- **External Opportunities:** An opportunity is an attractive arena to take action in which the department would enjoy a competitive advantage, would further the agency in meeting its vision or fulfilling its mission, or enhance the development of its services. The agency should watch and plan for these if there is a high probability of occurrence.
- **External Threats:** A challenge posed by an unfavorable trend, event, or development in the environment. In the absence of purposeful action, this threat might lead to the erosion of the department quality service provision, financial and service sustainability, or the agency's position or credibility. In some instances, this could also be detrimental to the parks and recreation industry. The department should identify and prepare to mitigate all foreseeable threats.



During a meeting with staff, the team began brainstorming to identify potential strengths, weaknesses, opportunities, and threats. As a group, the strengths, weaknesses, opportunities, and threats were listed, and then ranked according to the following.

After the brainstorming session regarding the **strengths and weaknesses**, a consensus was reached on ranking the **performance** and **importance** rating scale for each item.

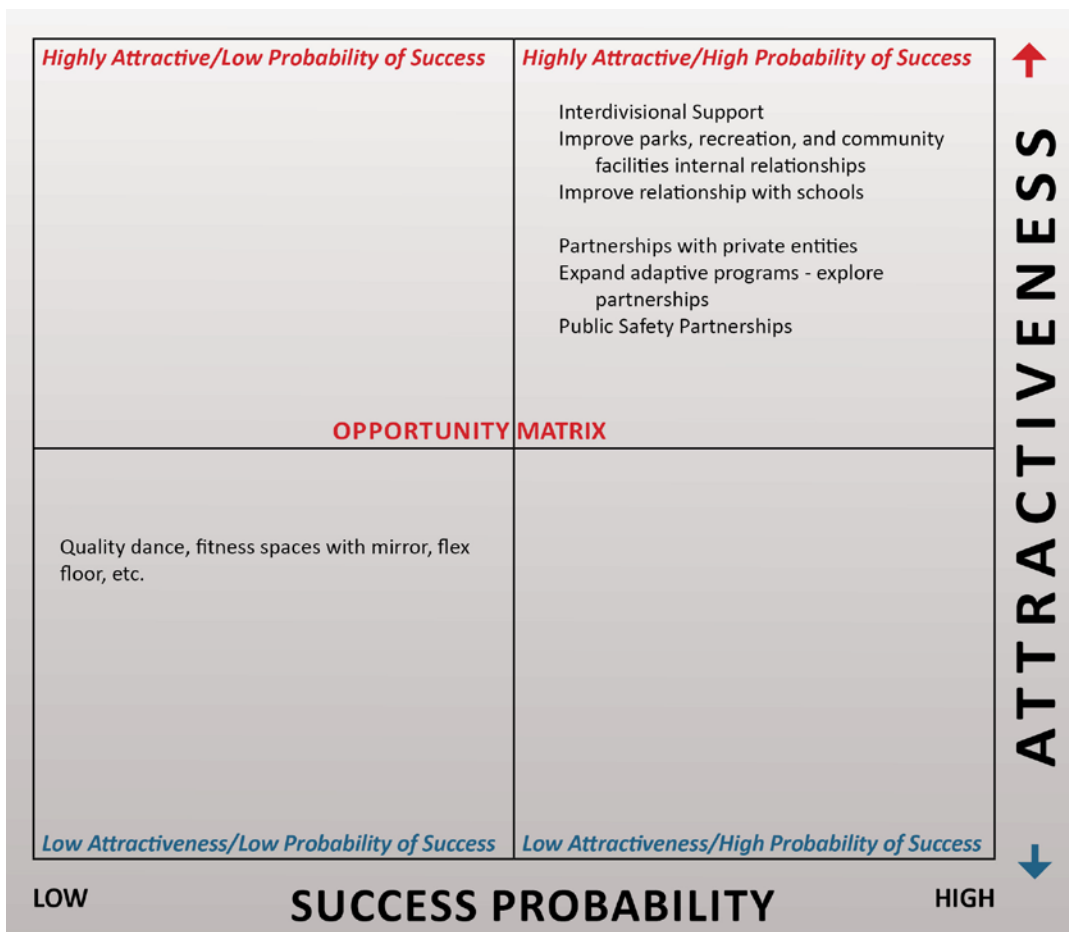
- **Performance:** rated as major strength, minor strength, neutral (neither major nor minor), minor weakness, or major weakness.
- **Importance:** rated the importance of each item to the success of the Department. Rating is high, medium, or low.
- After consensus was reached on each strength or weakness, a rating for performance and importance, a Performance-Importance Matrix was developed.
- The Department Major/High and Minor/High strengths and weaknesses were plotted on a chart (below).



For each **opportunity**, a consensus rating for **attractiveness** (high or low) and **success probability** (high or low) was established.

- **Attractiveness** refers to how attractive the opportunity is to the Department in furthering its mission, fulfilling its vision, improving its revenue generation, cost recovery, or decreasing expenses. Rating is either **high** or **low**.
- **Success probability** relates to whether the Department's strengths will enable it to be successful in this area. Rating is either **high** or **low**.

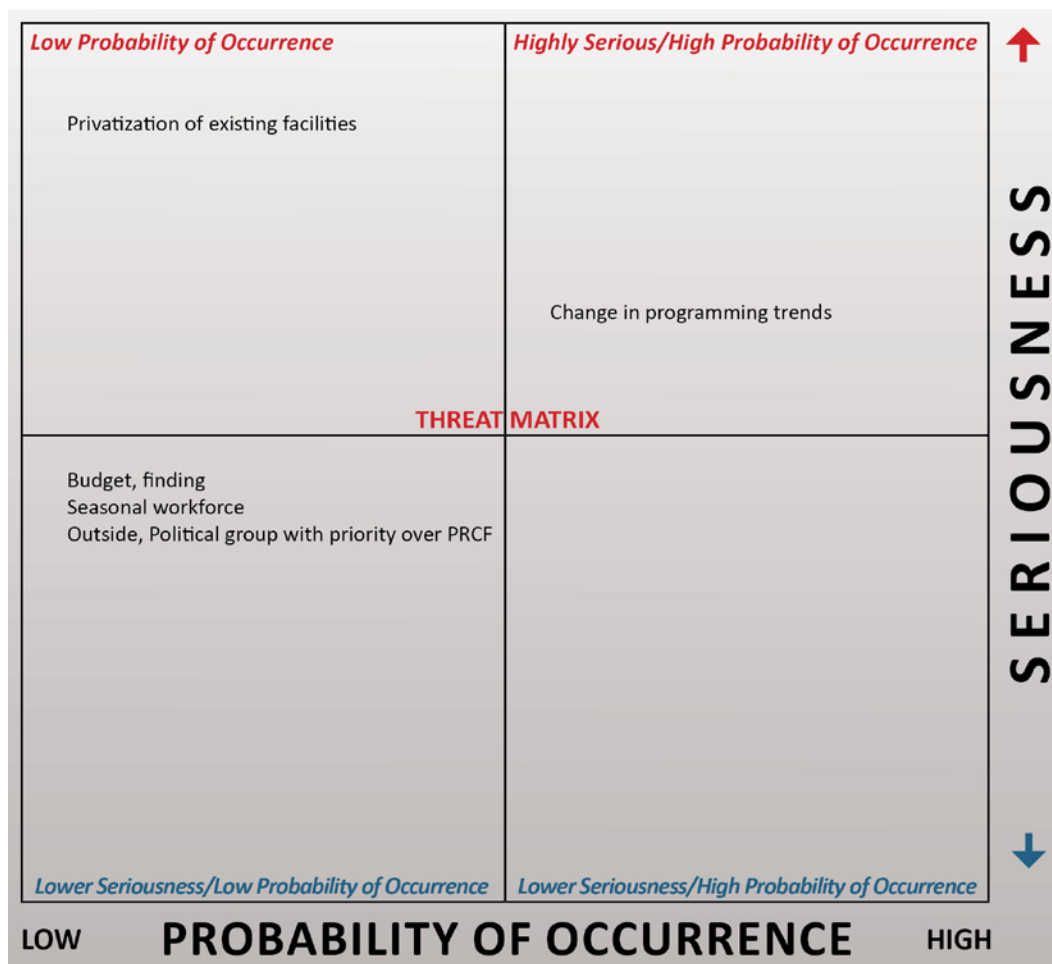
The Department consensus ratings were then charted for each **opportunity** for **attractiveness** and **success probability** into an **Opportunity Matrix** (below).



For each **threat**, a consensus rating to specify the likelihood that it will happen (**probability of occurrence**) and the **seriousness** of the threat was established.

- **Probability of occurrence** relates to the likelihood that the threat will happen. Rating is either **high** or **low**.
- **Seriousness** of the threat is rated either **high** or **low**.

The Department consensus ratings were then charted for each **threat** for **probability of occurrence** and **seriousness** into a **Threat Matrix** (below).



A key and consistent element brought forward by the staff was the notion that improvements could be made through the nurturing of existing partnerships and cooperative arrangements with entities such as the schools and in seeking new beneficial partnerships with other public, private, and non-profit organizations.

Many of the items identified in the SWOT Analysis had much discussion, including examples, and identification of elements as to why it should fall on the charts where it did. The shortened description in the chart does not represent the entire conversation, and therefore negative conclusions should not be drawn from these charts without a discussion of the total intent.

Organizational Changes

Changes to the organizational structure began in Fiscal Year 2008 and included the transfer of the Community Facilities Department under the supervision of one director in the newly renamed Department of Parks, Recreation, and Community Facilities. Adjustments were made to the organizational chart to include the position of Assistant Director. PRCF, in an effort to reflect current conditions, has adjusted assignments to maximize individual skills or professional knowledge and is taking a proactive approach to aligning job responsibilities.

Staffing Analysis

GreenPlay broadly assessed the management structure and staffing levels of the Department to determine effectiveness and efficiency in meeting current and future departmental responsibilities as related to the community's needs. Many observations were taken into account to determine if the Department had the right mix of staffing in the right places.

The staffing analysis process included the observations and assessments of:

- Community input.
- Community satisfaction rates.
- Staff focus group.
- Individual staff interviews.
- Facility tours.
- Observations of quality of maintenance.
- Hours of operation.
- Professional knowledge in Parks and Recreation organizations.
- SWOT Analysis.
- Organizational chart.
- Departmental Budgets.

Staffing Considerations

After considering all of the organizational observations and staffing assessment, the consultant team has determined that the Department has an adequate number of staff to operate its current system with the following caveats:

1. That strong communication must be established and maintained within and between the divisions of PRCF to promptly and effectively maintain departmental facilities.
2. Stafford PRCF is lacking in the Federally-mandated Americans with Disabilities Act requirements for inclusion service as well as programming specific for individuals with special needs.

To operate more effectively in the future and to implement this plan, Department staff should consider assigning the following duties to either existing staff or consider additional staff.

- A Therapeutic Recreation Specialist with responsibility to coordinate inclusion and adaptive recreation programming.
- A staff liaison to enhance existing partnerships and to seek new partnership, sponsorships, grant, and donation opportunities.
- Marketing, external communication, and web administration require additional resources, either reassigned from current staff, contracted, or additional staff.
- Ensure staffing resource levels can maintain existing and new facilities at or above acceptable standards.

IV. What We Have Now - An Analysis of Spaces and Services

The Stafford County Parks Utilization Plan involved the assembly of various recreation facilities within the County in an inventory, each of which was then assessed based on its recreation value to the community.

Asset Inventory

A detailed inventory of public and semi-public physical assets available for recreational use by Stafford County residents was assembled for the Parks Utilization Assessment. This asset inventory will serve Stafford County in a number of ways. It can be used for a variety of planning and operations tasks, such as land acquisition and asset management, as well as future strategic planning efforts.

The assets inventory currently includes publicly accessible parks and school assets and indoor community recreation facilities, including libraries and a gymnastics center. The recreational value of school assets was discounted due to limited hours of access. Additionally, assets within the County furnished by alternative providers were also identified for reference, several of which were included in the inventory and assessment.



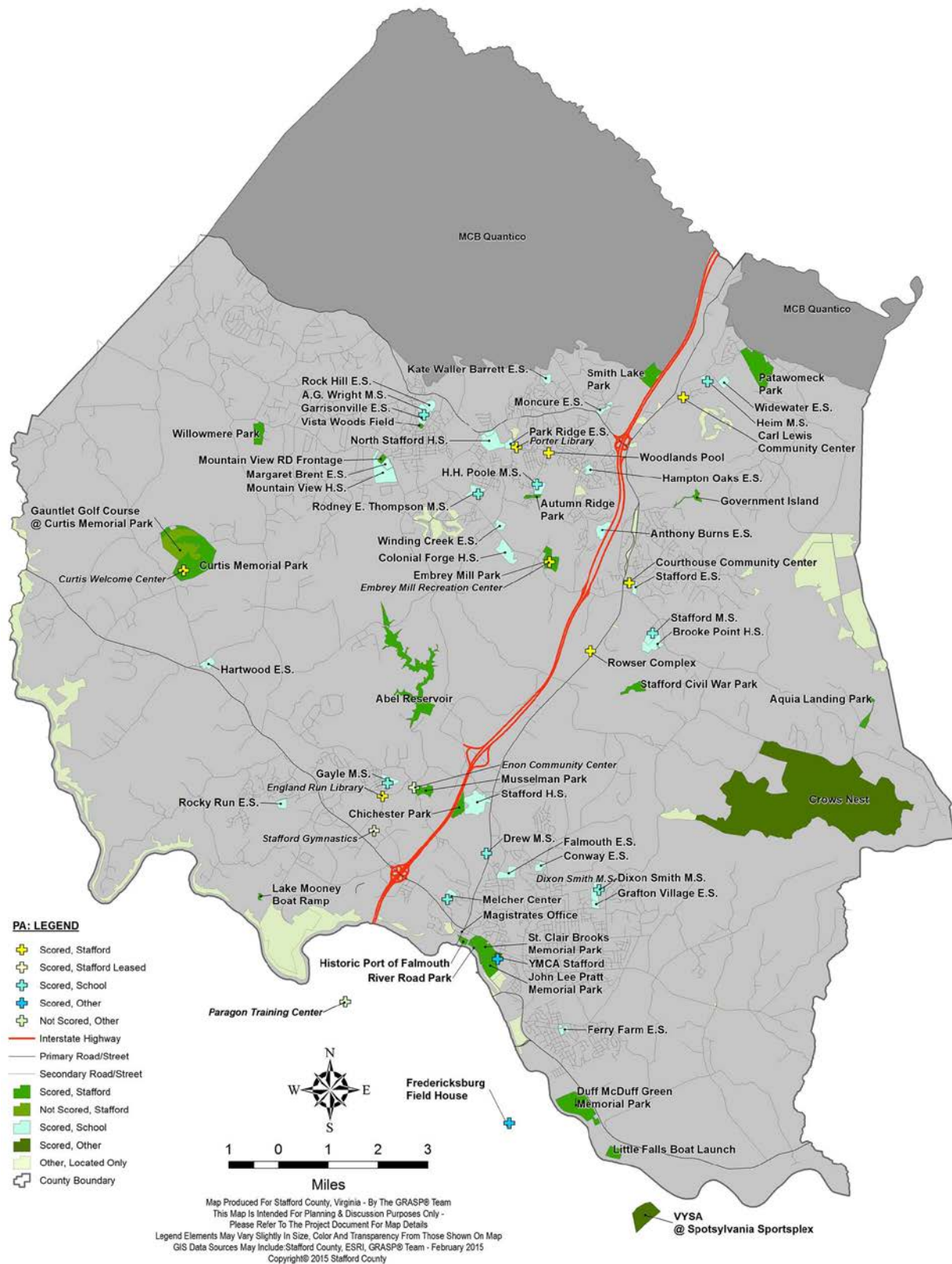
The following is a summary of the overall inventoried sites:

- **Indoor Facilities**
 - 9 Stafford Owned or Leased Facilities
 - 9 Schools
 - 2 Alternative Provider Owned

- **Outdoor Facilities**
 - 26 Stafford Owned
 - 31 Schools
 - 4 Alternative Provider Owned (Additional 29 located for reference)

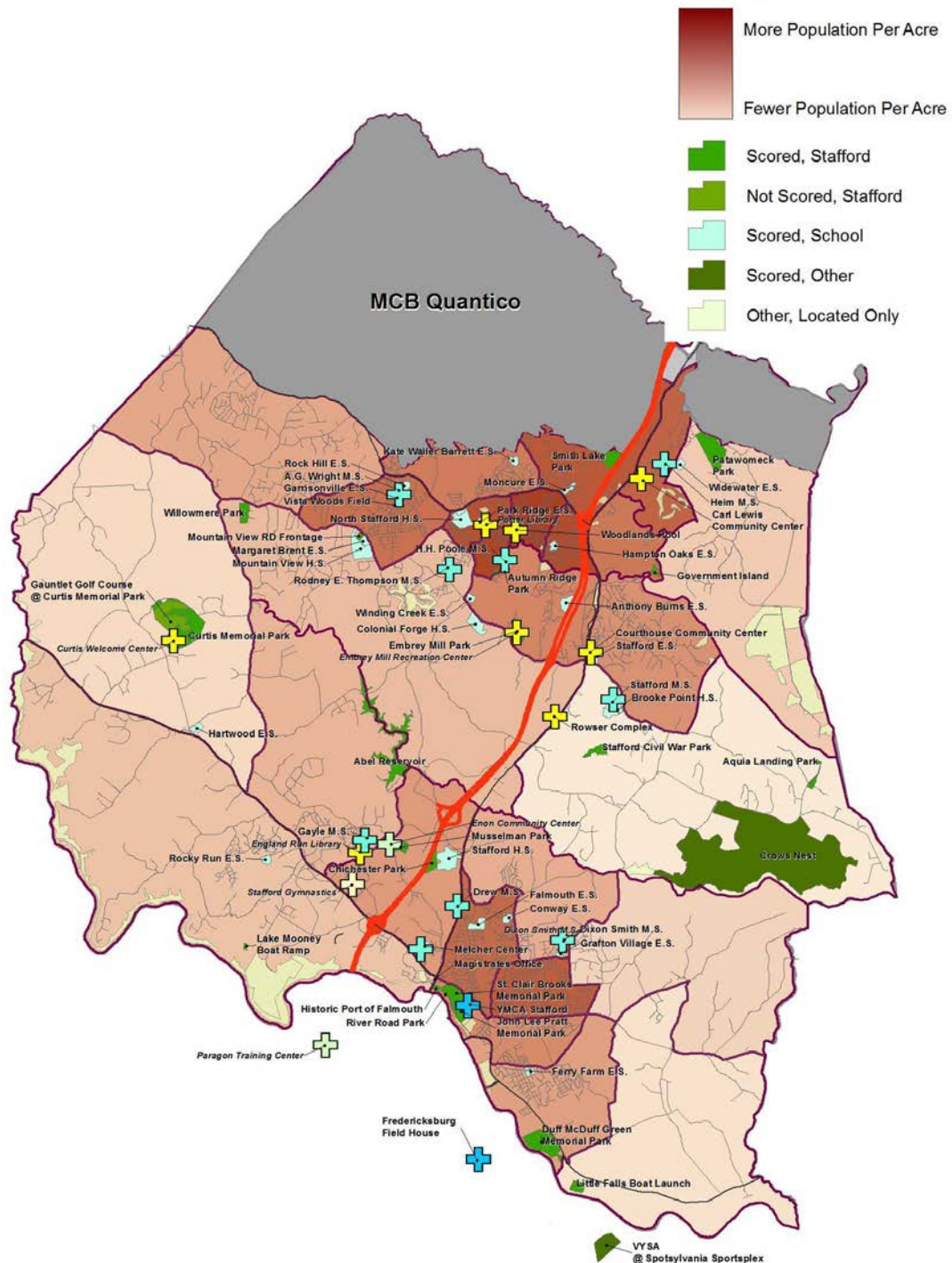
Figure 7 shows the study area and key locations of properties. Larger scale maps are provided as separate documents.

Figure 7: Stafford County System Map



Stafford County system map showing all inventory included for GRASP® analysis.

Figure 8: Stafford County Population Density Map

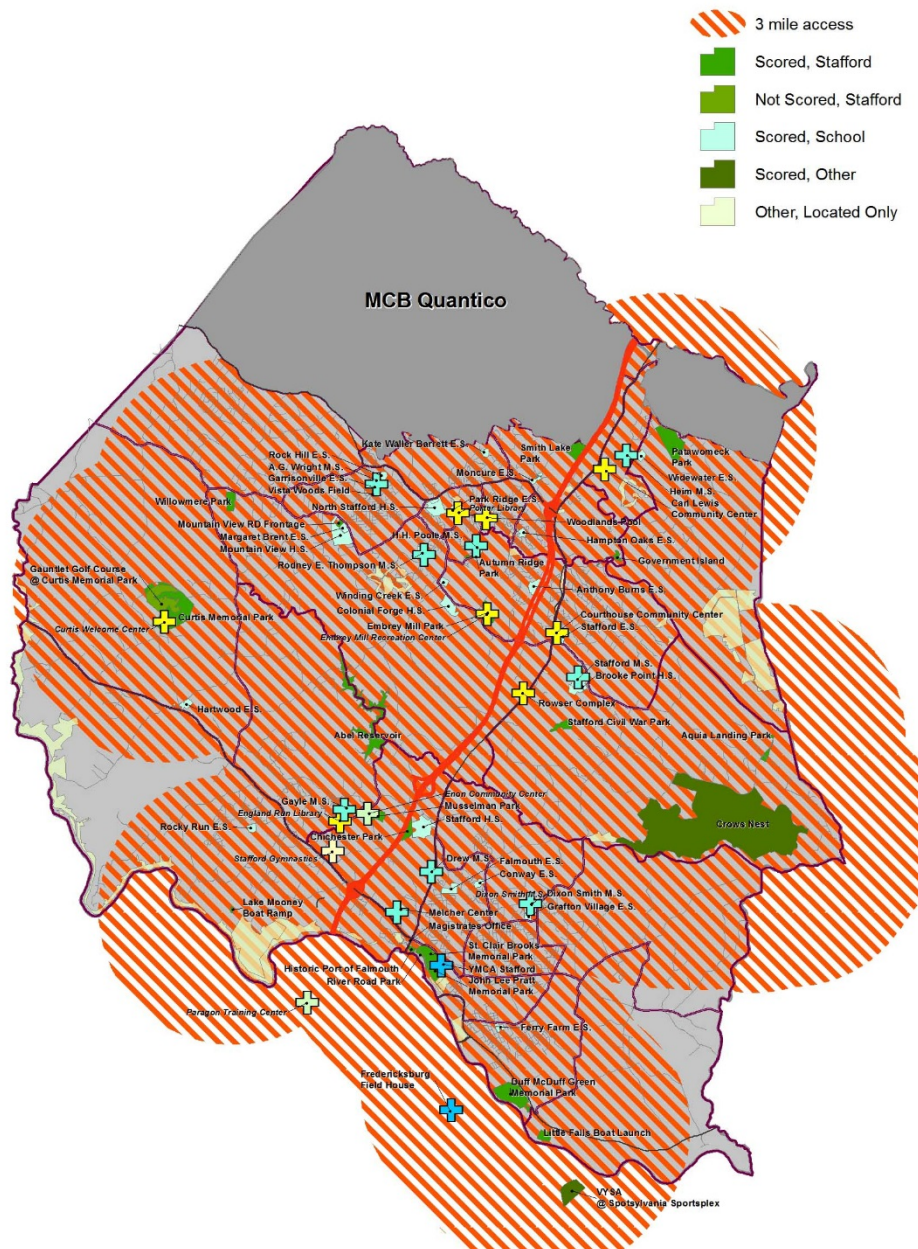


Stafford County population density map displaying total population/acre based on 2014 census tract projection as reported by Esri.

Access to Recreation

Stafford County's distribution of park and indoor recreation facilities is good. Facilities are currently distributed about three miles apart on average within Stafford County. This equates to a drive of 20 minutes or less. Focus Group and Stakeholder Meetings indicated that people are generally willing to travel at least 20 minutes to a park within Stafford County. Esri Network Analyst software reveals a tremendous variety in the distance attainable in a 20 minute drive, ranging from less than one mile to nearly 20 miles, though most commonly, a distance of three miles may be expected. **Figure 9** below shows a graphic representation of this distribution and three mile catchments, or service areas, for each park.

Figure 9: General Park Access

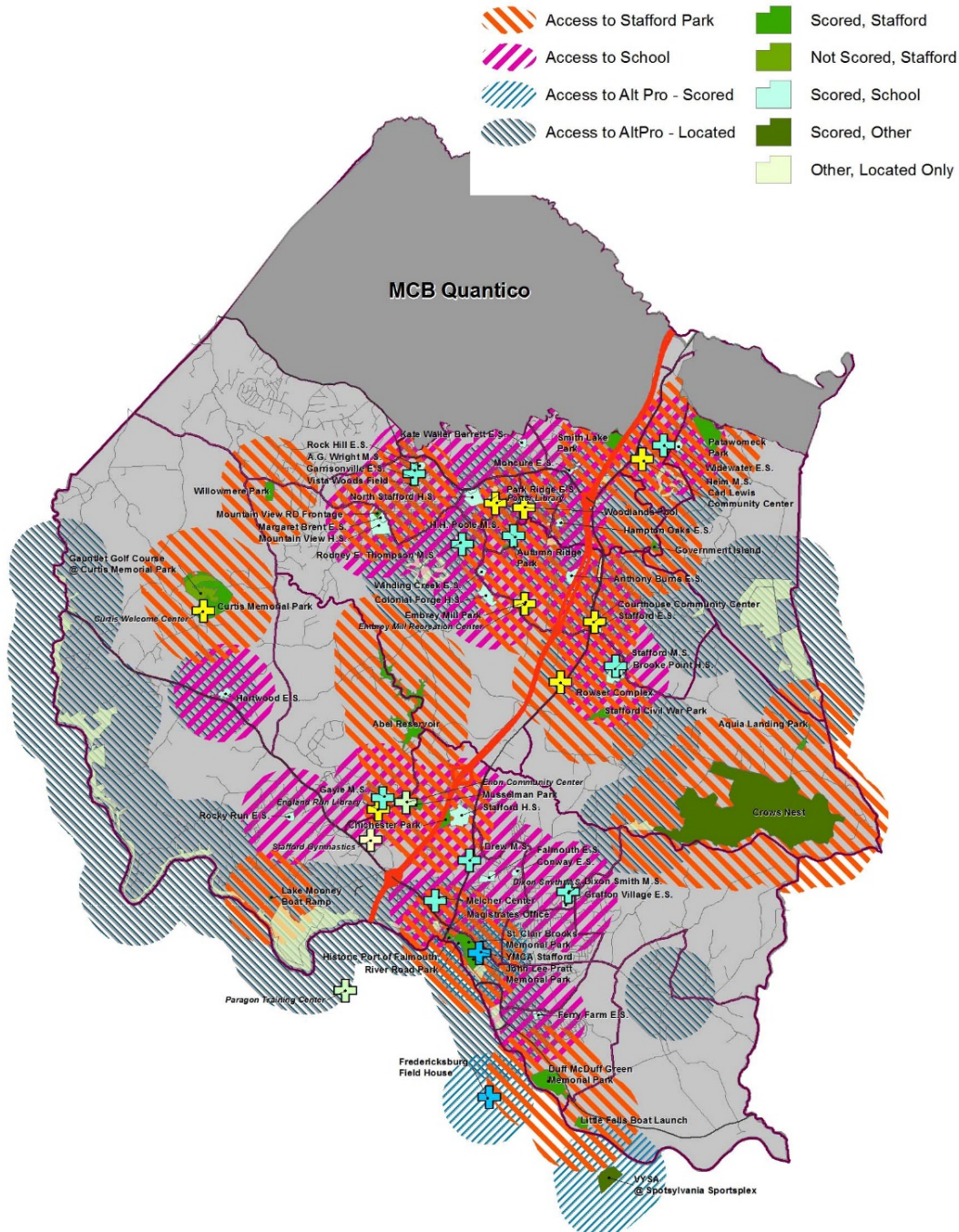


Stafford County General Park Access based on 3-mile access

Proximity Premium

A shorter travel distance is often desired, however, to provide better local access to recreation. An examination of **Figure 10** shows one-mile access to parks and outdoor recreation including schools and identified alternative providers. It illustrates the important role of schools and alternative provider facilities in serving County residents.

Figure 10: One Mile Access to Parks and Outdoor Recreation



Stafford County Park Premium Access based on 1-mile access

GRASP® Methodology

Level of Service for a parks and recreation system is indicative of the ability of people to pursue active lifestyles. It can have implications regarding health and wellness, the local economy, and quality of life and tends to reflect community values. It is emblematic of the manner and extent to which people are connected to their communities.

The GRASP® Methodology involves mapping, scoring, demographics, and interpretation of the resulting perspectives to yield a picture of recreational service in a study area. The various efforts undertaken for this study are described below with general findings summarized in the following section.

An analytical technique known as **GRASP® (Geo-Referenced Amenities Standard Process)** was used to analyze Level of Service (LOS) provided by assets in Stafford County. This proprietary process, used exclusively by GreenPlay and Design Concepts, yields analytical maps and data that may be used to examine access to recreation across the study area. A detailed history and description of GRASP® Methodology may be found in **Appendix A**.

Asset Scoring

In planning for the delivery of parks and recreation services it is useful to think of parks, trails, indoor facilities, and other public spaces as parts of an infrastructure. This infrastructure allows people to exercise, socialize, and maintain a healthy physical, mental, and social wellbeing. The infrastructure is made up of components that support this goal. Components include amenities such as playgrounds, picnic shelters, courts, fields, indoor facilities, and other elements that allow the system to meet recreational needs of a community. A **component** is a feature that people go to a park or recreation center to use, such as a tennis court to play a game of tennis, which gives users reason to visit and serves as an intended destination. A standardized list of GRASP® components is used to classify each asset in the system. This list of components and definitions can be found in **Appendix A**.

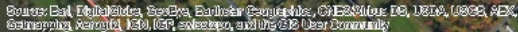
In the inventory of assets, the following information is collected:

- Component type and location.
- Evaluation of component functionality.
- Evaluation of associated comfort and convenience features at a location.
- Evaluation of general design and ambience at a location.
- Site photos.
- General comments.

All components are scored based on condition, size, site capacity, and overall functionality as compared with typical facilities in Stafford County. Each is evaluated as it reflects the expected quality of recreational features in the system as a whole. A three tier rating system is used:

- 1 = Below Expectations
- 2 = Meets Expectations
- 3 = Exceeds Expectations

A final inventory atlas is provided as a separate document. This atlas includes maps and corresponding data including scoring and comments for all outdoor locations. Indoor data and scoring is also included. Below is an example of map and data pages from that document.



Initial Inventory Date:

John Lee Pratt Mem

106 Total Community
GRASP® ScoreApproximate Park Acreage 64.27
Owner Stafford
Facility

Modifiers with Scores

Drinking Fountains	2	Shade	2	Design and Ambiance
Seating	2	Trail Connection	3	2
BBO Grills	2	Park Access	2	
Dog Pick-Up Station	2	Parking	1	
Security Lighting	2	Seasonal Plantings	0	
Bike Parking	1	Ornamental Plantings	0	
Restrooms	2	Picnic Tables	2	

General Comments

Important event park but often limited by parking

Components with Score

MAPID	Component	Quantity	Lights	Community Score	Comments
14_0352	Disk Golf	1		2	18 hole course throughout park.
15_0334	Horseshoes	1		2	
15_0336	Event Space	1		2	Large grass area host many special events.
15_0338	Picnic Grounds	1		2	
PU000	Ballfield	1		1	
14_0344	Basketball	1		2	With adjacent ball wall.
14_0346	Tennis	1		2	Newer fencing and surfacing. Limited shade adjacent. No lights.
14_0348	Pavilion, Group	1		3	Nice pavilion with fireplace.
14_0317	Playground, Local	1		2	Great opportunity for destination play.
14_0343	Concessions	1		2	
15_0332	Event Space	1		3	New covered stage with grass seating.
14_0351	Pavilion, Group	1		2	
0459	PARC/FI	1		2	
MP005	MP Field, Large	1		1	
MP000	MP Field, Large	1		1	
15_0322	Basketball	1		2	
15_0323	Tennis	1		2	Newly surfaced.
15_0324	Tennis	1		2	Newly surfaced.
15_0325	Tennis	1		2	
MP010	MP Field, Large	1		1	

In addition to the inventory atlas, the dataset can be used to run a variety of analyses, reports, and queries. The following summary tables show each park or facility in the inventory, as well as each identified recreation component available.

Table 9: Inventory Summary – County-owned Outdoor Facilities

LOCATION	Aquatic Feature, Pool	Aquatic Feature, Spray	Backstop, Practice	Ballfield	Basketball	Batting Cage	Concessions	Concessions with Restroom	Disk Golf	Dog Park	Event Space	Historic or Cultural Feature	Horseshoes	Loop Walk	MP Field, All Sizes	Multiuse Court	Open Turf	Open Water	Passive Node	Pavillion, All Sizes	Picnic Grounds	Playground, All Sizes	Skate Park	Tennis	Track, Competition	Trailhead	Volleyball	Water Access, Developed	Water Access, General
Abel Reservoir																		1										1	
Aquia Landing Park												1	1				1	1		3								1	1
Autumn Ridge Park				1											1					1		1							
Carl Lewis Community Center															1														
Chichester Park				5				1												1									
Courthouse Community Center														1	1														
Curtis Memorial Park	2		1				1				1		2		1			1		8			1	3		1	2	6	
Duff McDuff Green Memorial Park				3		1				1					2			1		3		1						1	
Embrey Mill Park								1							6					2									
Government Island												7						1	4							1			
Historic Port of Falmouth																		1			1							1	
John Lee Pratt Memorial Park				1	2		1		1		2		3	1	5					2	1	1		4					
Lake Mooney Boat Ramp																		1										1	
Little Falls Boat Launch																		1										2	
Mountain View RD Frontage															1														
Musselman Park																													
Patawomeck Park				2										1	2		1	1		1		1							
River Road Park															1														
Rowser Complex				1		1																							
Smith Lake Park				3		1	1	1					2		2					2		1							
St. Clair Brooks Memorial Park				2	2	1								1	1					1	2	1	1				1		
Stafford Civil War Park												5									1					1			
Vista Woods Field															1														
Willowmere Park				4		1								1	3		1			2		1							
Woodlands Pool		1																											
Totals:	2	1	1	22	4	5	3	3	1	1	3	13	8	5	28	0	3	9	4	26	5	7	2	7	0	3	3	13	1

Table 10: Inventory Summary – School-Owned Outdoor Facilities

LOCATION	Backstop, Practice	Ballfield	Loop Walk	MP Field, All Sizes	Multiuse Court	Open Turf	Playground, All Sizes	Tennis	Track, Competition
A.G. Wright M.S.		2		1	1	1			1
Anthony Burns E.S.				1		1	1		
Brooke Point H.S.		2		3		2		6	1
Colonial Forge H.S.	1	3		6				6	1
Conway E.S.				1	1		1		
Dixon Smith M.S.		1		2				3	1
Drew M.S.		1		2	1	1			1
Falmouth E.S.		1			1	1	1		
Ferry Farm E.S.		1		1	1		1		
Garrisonville E.S.				1	1		1		
Gayle M.S.		1		2				3	1
Grafton Village E.S.	1			1	1	1	1		
H.H. Poole M.S.		1		3		1		3	1
Hampton Oaks E.S.		1			1		1		
Hartwood E.S.		1		2	1		1		
Heim M.S.		1		1		1			1
Kate Waller Barrett			1		1	1	1		
Margaret Brent E.S.			1	1	1		1		
Melcher Center		1		1	1				1
Moncure E.S.					1	1	1		
Mountain View H.S.	1	2		5		1		8	1
North Stafford H.S.		4		5	1			8	1
Park Ridge E.S.				1	2	1	2		
Rock Hill E.S.					2	1	1		
Rocky Run E.S.			1		3	1	1		
Rodney E. Thompson MS	2	2		2		1		3	1
Stafford E.S.		1		1	1		1		
Stafford H.S.		2		2					1
Stafford M.S.		1							
Widewater E.S.	1			1	2	2	1		
Winding Creek E.S.			1	2	1		1		
Totals:	6	29	4	48	25	18	18	40	13

Table 11: Inventory Summary – Alternative Provider Outdoor Facilities

LOCATION	Aqua Feat, Spray	Concessions with Restroom	MP Field, All Sizes	Open Turf	Playground, All Sizes	Trailhead	Volleyball	Water Access, General
VYSA Soccer Facility		3	18	2				
Fredericksburg Field House Outdoor			2					
YMCA Stafford	1				1		3	
Crows Nest						1		1
Totals:	1	3	20	2	1	1	3	1

Inventory summary table for Alternative Provider owned outdoor facilities

Table 12: Inventory Summary – Stafford County-Owned/Operated Indoor Facilities

LOCATION	Art and Crafts	Childcare/Preschool	Food - Vending	Gallery	Gymnasium	Kitchen - Commercial	Kitchen - Kitchenette	Multi-purpose	Patio/outdoor seating	Pool, Lap	Pool, Leisure	Pool, Therapy	Retail/Pro-shop	Speciality Training	Weight/Cardio Equipment
Carl Lewis Community							1	1							
Courthouse Community Center					1			3							
Curtis Welcome Center								2							
Embrey Mill Rec		1	1		2			2		1	1	1		2	1
England Run Library				1				8							
Porter Library				1				5	1				1		
Rowser Indoor	1			1	1	1	1	3	1						
Stafford Gymnastics								2					1	3	
Woodlands Pool									1	1					
	1	1	1	3	4	1	2	26	3	2	1	1	2	5	1

Table 13: Inventory Summary – Alternative Provider Indoor Facilities

LOCATION	Food - Café/Concessions	Gymnasium	MP Field, Large	MP Field, Medium	MP Field, Small	Multi-purpose	Pool, Lap
Fredericksburg Field House	1		1	2	4	4	
YMCA		2				1	1
	1	2	1	2	4	5	1

Table 14: Inventory Summary – School-Owned Indoor Facilities

LOCATION	Gymnasium
A.G. Wright M.S.	1
Dixon Smith M.S.	1
Drew M.S.	1
Gayle M.S.	1
H.H. Poole M.S.	2
Heim M.S.	1
Melcher Center	1
Rodney E. Thompson MS	1
Stafford M.S.	1
	10

Not all parks are created equal. GRASP® level of service analysis takes into account important aspects of user experience often neglected. For example, the GRASP® system acknowledges the important differences between these identical playground structures:



The immediate surroundings of a component affect how well it functions, so in addition to scoring components, each park site or indoor facility is given a set of scores to rate its comfort, convenience, and ambient qualities. This includes traits such as the availability of restrooms, drinking water, shade, scenery, etc. These **modifier** values are then attributed to any component at a given location and serve to enhance component and location scores.

GRASP® Analysis

Maps and data quantifications produced using the GRASP® methodology are known as *perspectives*. Each perspective is a model of recreational service provided across the study area. A perspective can be further analyzed to derive statistical information about service in a variety of ways. Maps are utilized along with tables and charts to provide benchmarks an agency may use to determine its success in providing services.

Catchment Areas

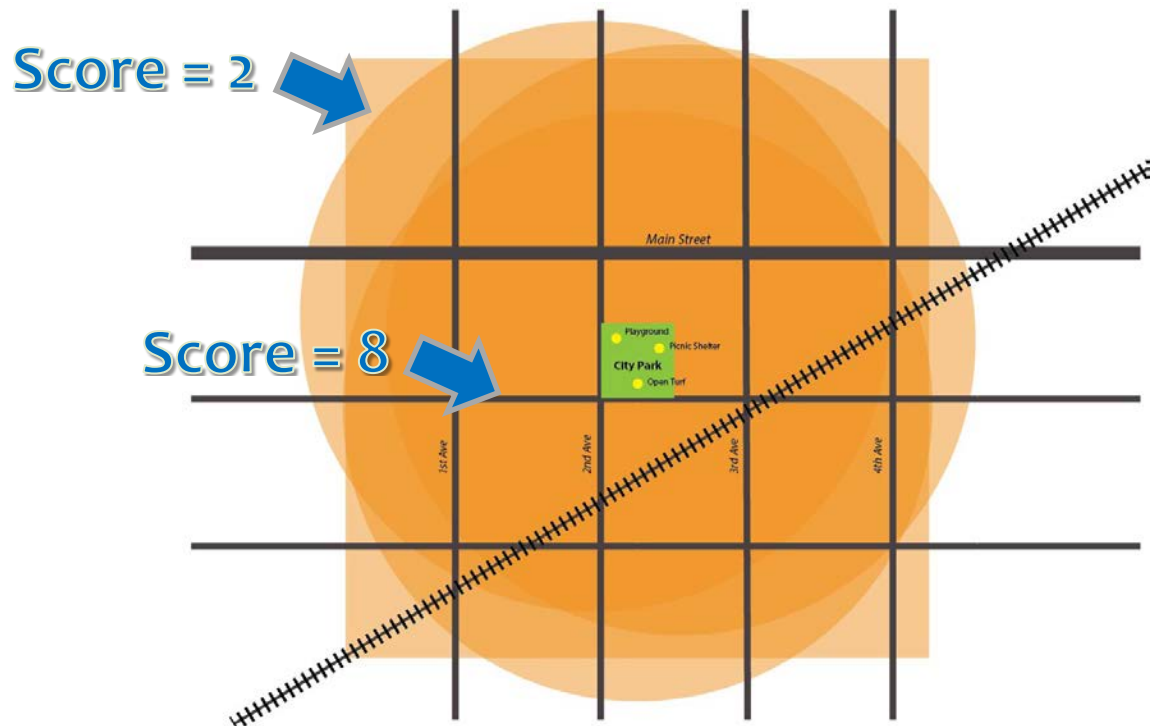
People are typically only willing to travel a limited distance to reach a recreation destination. The GRASP® system accounts for this by applying ***catchment areas*** to examine access to assets. A catchment area on a map, also called a buffer, is a circle of a specific distance drawn around each component. For the Stafford County assessment two different catchment area distances were applied to calculate scoring totals, yielding two distinct perspectives:

1. General Access based on a three-mile catchment
2. Premium Access based on a one-mile catchment

It is assumed that proximity equates to access. This means that the presence of a recreational facility within a specific distance indicates that facility is accessible from a location. It should be noted that “accessibility” in this analysis does not refer specifically to ADA accessibility.

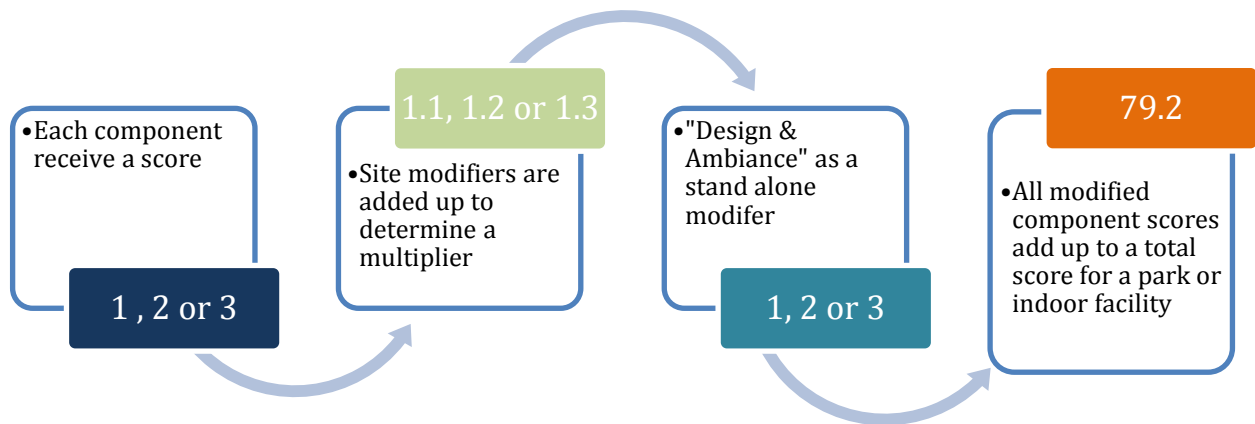
The score of any component is reflected at any point within a catchment area that surrounds it. These areas are overlapped and used to calculate a total GRASP® Level of Service score for any given point within the study area, in this case, Stafford County. When service areas for multiple components are plotted on a map, a picture emerges of the cumulative scoring provided by that set of components in a geographic area, and thus reflects level of service for any given part of a study area. This process yields the data used to create all perspective maps and analytical charts. **Figure 11**, following, illustrates the process. It assumes all three components of “City Park” and the park boundary itself, and thus all catchments score a “2.”

Figure 11: GRASP® Analysis Sample



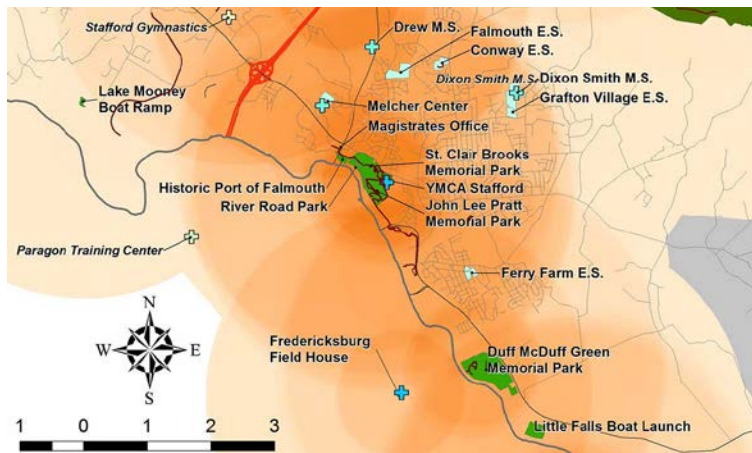
This GRASP® analysis example assumes all components in “City Park,” as well as the park site itself, score a “2.”

Modifiers are introduced to further enhance scoring based on site amenities and quality of surroundings. A basic algorithm is used to calculate scoring totals for every park and indoor facility in the inventory, illustrated below.



GRASP® scoring calculation.

Perspective maps and charts are produced based on scoring calculations determined by applying the GRASP® process to the entire Stafford County inventory. Shown on a **heat map**, cumulative GRASP® scoring is represented by darker or lighter shades as shown following.

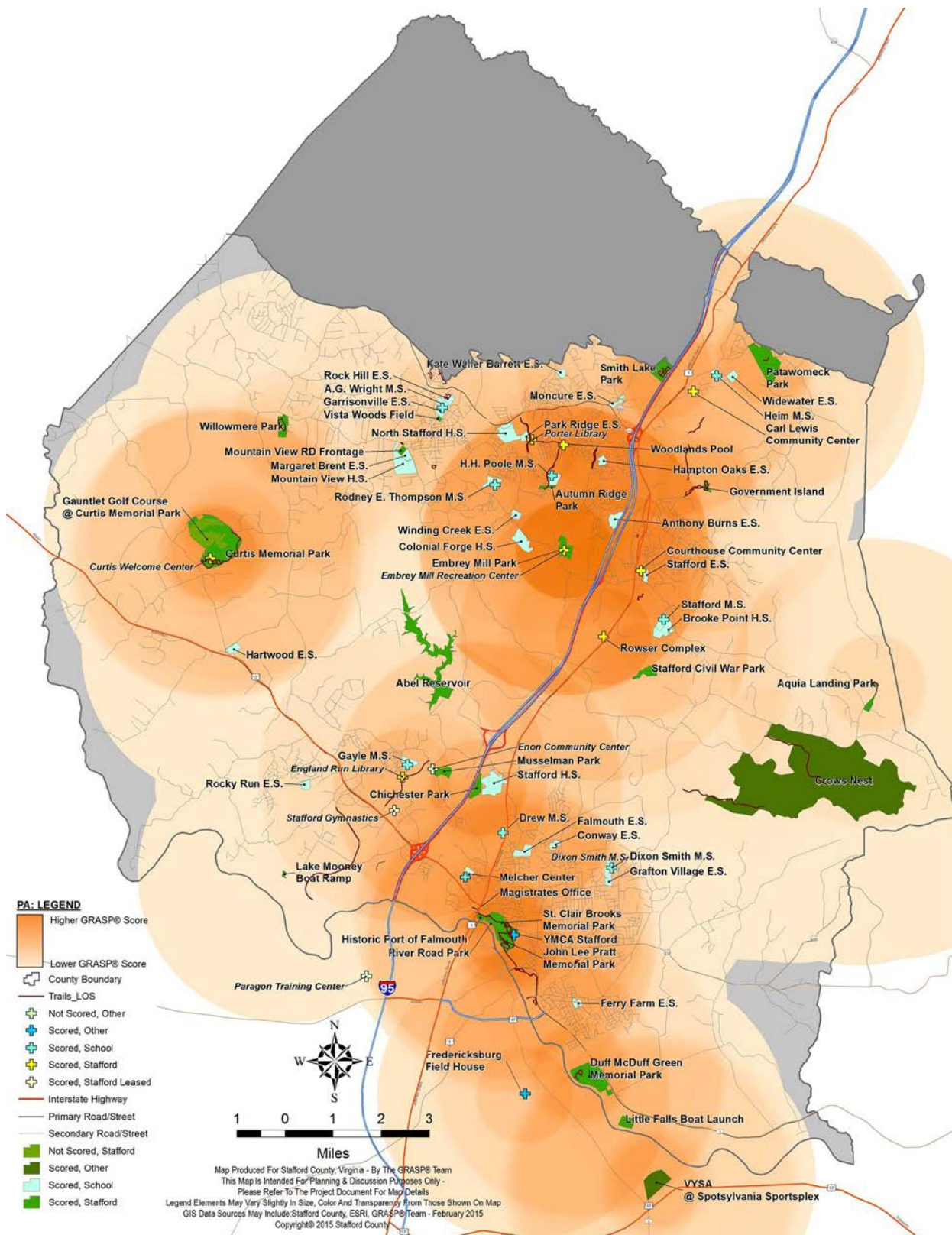


Darker and lighter orange shades on a heat map show areas of higher or lower level of service respectively as indicated by cumulative GRASP scoring values. Also shown for reference are outdoor locations, indoor locations, schools, and alternative providers.

Access to All Recreation

The Access to All Recreation perspective indicates overall access to recreation in Stafford County and includes indoor and outdoor recreation opportunities of all providers in the dataset, shown in **Figure 12**. This perspective incorporates both three-mile general access and one-mile premium access catchments. Three-mile catchment buffers represent a convenient travel distance by normal means, and typically approximates a 20 minute ride in an automobile. This perspective also overlays a one-mile service area representing a premium for proximity distance. Asset scores are in effect doubled within this distance of a component to reflect the added value of closer proximity. This doubling of the GRASP® value within a one-mile distance of the component serves to place a premium on those areas.

Figure 12: Stafford County Access to Recreation (Heat Map)



Access to All Recreation in Stafford County is displayed here as a heat map.

An overview of this analysis shows several areas of more concentrated level of service. These concentrations tend to follow the Interstate 95 corridor from North to South and then East along the Rappahannock River corridor. An additional level of service concentration is indicated in the western part of the County, centered on Curtis Park. Upon comparison to the population density map in Figure B, this analysis suggests that the current recreation opportunities afforded to users corresponds with concentrations of population density. It is a very positive finding that the current level of service is, for the most part, available where residents live.

Further statistics can also be derived from this mapping analysis.

	Percent of Total with LOS	Average LOS per Acre Served	Avg. LOS Per Acre / Population per acre	GRASP® Index
Stafford County	95%	280	297	15

Figure 11 Statistics. (LOS equals level of service or GRASP® score)

Column A: Shows the percentage of the County that has at least some service. General access to recreation opportunities can be thought of as very good in Stafford County, as 95 percent of the County has access to recreation opportunities within three miles.

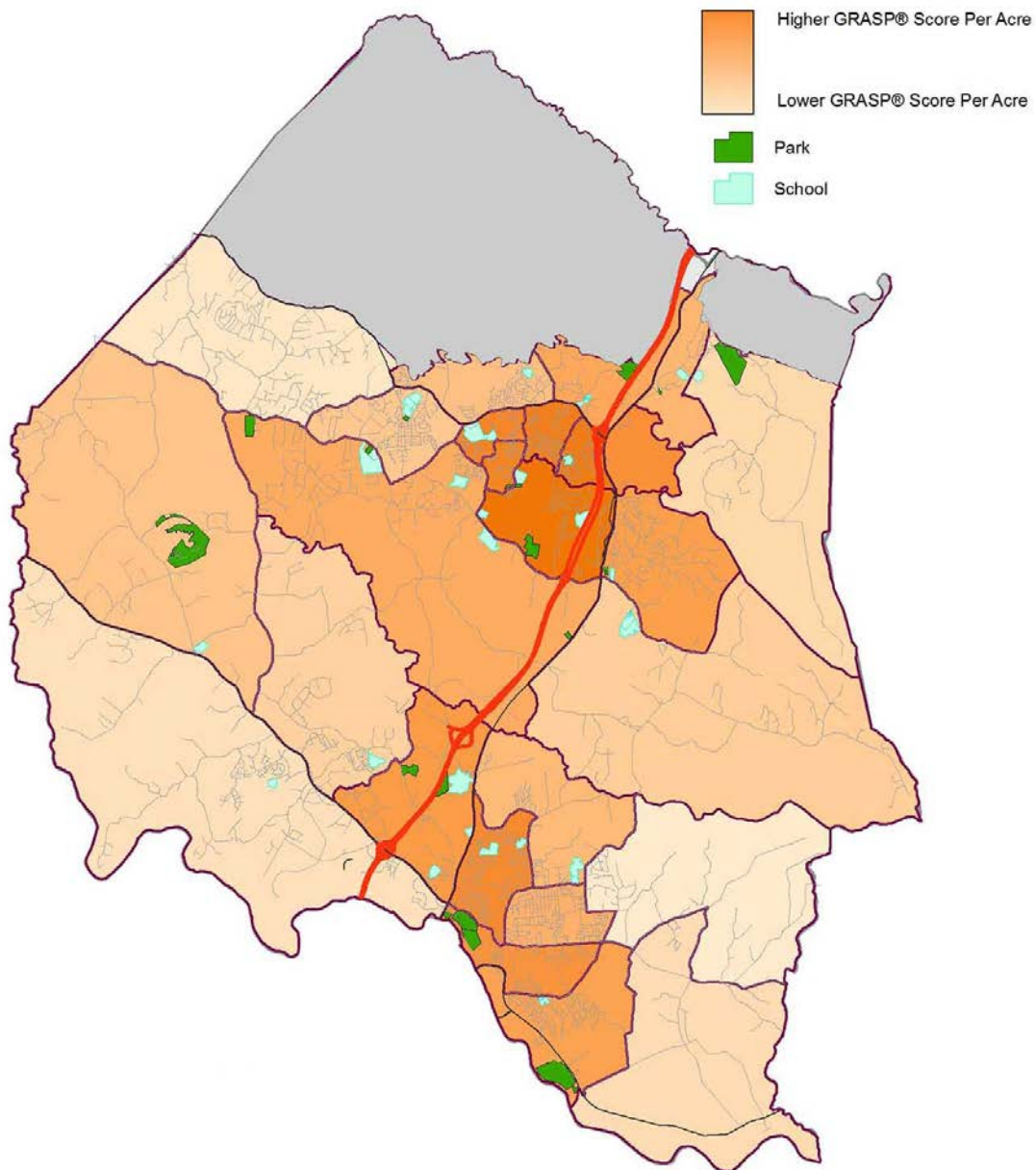
Column B: Shows the average numerical value of LOS for the total area. Scores for the entire County ranged from a low of zero (or no service) to a high of 501 with an average of 280. This would indicate that where service is provided, that service is relatively high. For reference, this would calculate to access to a single regional park with more than 25 components and access to a multi-use trail.

Column C: Shows the result of dividing the number from the previous column (Average LOS per Acre Served) by the population density of the area.

Column D: GRASP® Index, is a simple numerical calculation that involves dividing the total GRASP® value of all of the components in a given area by the population of that area, in thousands. The difference between the GRASP® Index and the previous number is that the GRASP® Index reflects the total value of assets in the area in relation to the number of people the assets serve, while the previous number relates the *density* of service per acre to the *density* of people per acre. The GRASP® Index does not account for service from assets outside the study area, whereas the previous value does.

Additional analysis can also be done based on this same dataset. In **Figure 12**, the average level of service across individual census tracts is indicated. Darker shades of orange again represent higher level of service, in this case a higher average level of service per acre.

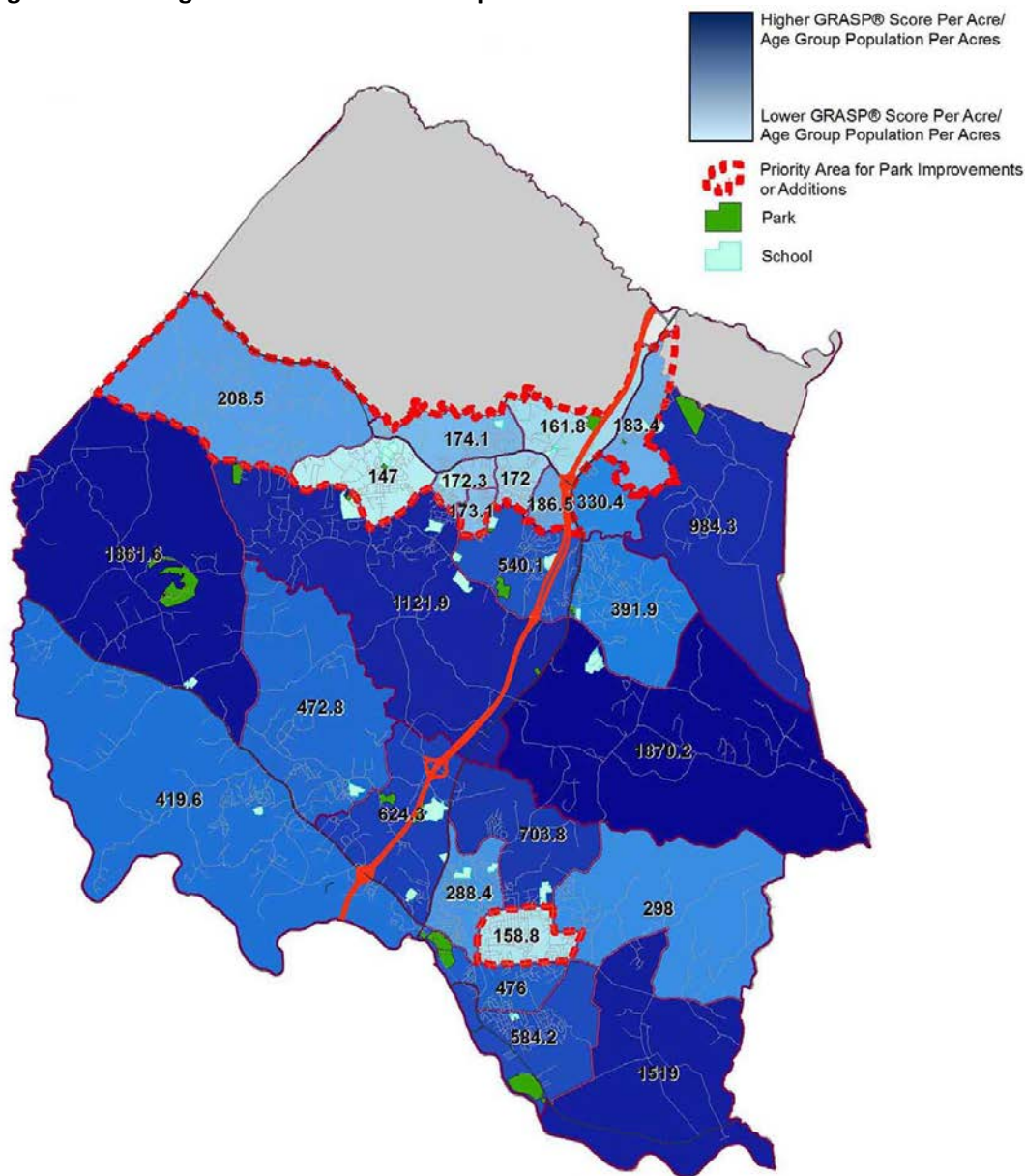
Figure 13: Average Level of Service per Acre Based on U.S. Census Tract.



This map appears similar to the previous map and again indicates higher level of service in census tracts along the Interstate 95 corridor from North to South and then East along the Rappahannock River corridor.

Combining this analysis with population density gives a picture of level of service per capita. Some areas of high level of service also have high population density. This analysis corrects for these densities in of those areas that have been identified as ranking lower in overall level of service per person. The lowest ten of 26 overall census tracts have been identified by a dashed red outline in this analysis. These areas could be considered as ranking higher in priority as improvements or additions to parks in the County are implemented. It should be noted that an existing park does not necessarily need to be located within one of the identified priority tracts to impact the overall level of service of that census tract. Based on the three mile catchment area, any park improvements or additions within three miles of a census tract will positively impact one or more of these areas.

Figure 14: Average Level of Service Per Capita



Average level of service per acre per capita, based on US census tract. For reference the per capita GRASP® value is shown for each.

GRASP® Comparative Data

The GRASP® Index, or the overall GRASP® value per capita, for Stafford County is 15. Because every agency is unique, there are no standard or “correct” numbers for these. However, it is useful to note that the GRASP® Index for Stafford County falls within the mid-range to low range amongst all agencies in this comparison. The following table provides comparative data from other communities and agencies that have participated in recent GRASP® analysis. For reference, statistics have been included for other agencies of similar size in addition to smaller and larger communities across the country. It is notable that Stafford County is the only county-based system in this table, and its offerings may differ greatly from agencies that are focused on “neighborhood” level of service. It is also important to note that school facilities were factored into the Stafford County level of service at a discount, thus increasing the overall number of sites but lowering the average score per site because of the discounting used. Other items to note in this table include that Stafford County had the largest study area and still offered access to 95 percent of the County with one of the highest average level of service per acre. The relatively low population density of Stafford County makes the average level of service per acre per person significantly higher than that of other agencies. While each agency in this table has its own inclusions and exclusions, the uniqueness to Stafford County’s system and size makes this type of comparative analysis difficult.

Table 15: GRASP® Comparative Data

STATE	CITY	YEAR	POPULATION	STUDY AREA SIZE (Acres)	# OF SITES (Parks, Facilities, etc.)	TOTAL # OF COMPONENTS	AVG. # COMPONENTS per SITE	TOTAL GRASP® VALUE (Entire System)	GRASP® INDEX	AVG. SCORE/SITE	% of TOTAL AREA w/LOS >0	AVG. LOS PER ACRE SERVED	NUMBER OF COMPONENTS PER POPULATION	AVERAGE LOS/POP DEN PER ACRE	pop den (per acre)
ID	Post Falls	2011	29,062	24,928	35	271	7.7	1005	36	28.7	71	169	9	145.0	1.2
OR	Corvallis	2011	54,462	18,006	54	309	5.7	2217	80	41.1	93	289	6	95.5	3.0
FL	Winter Haven		100,000	42,191	31	230	7.4	328	3	10.6	37	175	2	73.8	2.4
TX	Pearland	2015	101,900	30,468	21	164	7.8	1556	15	74.1	85%	162	2	55.4	2.9
OR	North Clackamas	2012	115,924	23,040	93	295	3.2	2207	19	23.7	97	183	3	36.4	5.0
CO	Fort Collins		130,681	33,388	45	619	13.8	2675	20	59.4	83	217	5	55.4	3.9
NC	Cary	2011	139,382	35,578	43	562	13.1	2843	20	66.1	97	221	4	56.4	3.9
IA	Cedar Rapids		143,788	45,987	98	759	7.7	2467	17	25.2	86	300	5	95.8	3.1
CO	Lakewood		144,369	27,494	105	738	7.0	6476	45	61.7	100	NA	5		5.3
IN	South Bend	2011	164,396	65,387	64	339	5.3	2417	15	37.8	72	130	2	51.7	2.5
FL	Ft Lauderdale		181,095	23,230	91	483	5.3	2662	15	29.3	98	221	3	28.4	7.8
VA	Arlington		190,000	NA	225	494	2.2	NA	NA	NA	NA	NA	3		
WA	Tacoma		203,984	34,133	104	488	4.7	NA	NA	NA	NA	NA	2		6.0
OR	THPRD	2012	224,627	29,097	253	1211	5	6843	30	27	100	489	5	63	7.7
VA	Stafford County	2015	138,230	146,417	60	389	6.5	2022	15	33.7	95%	280	3	297.0	0.9

Capacities Analysis

Capacities Analysis

One of the traditional tools for evaluating service for parks and recreation is the capacity analysis. This analysis compares quantity of assets to total population. **Table 16** shows the current capacities for all selected components in Stafford County. This table should be used in conjunction with other information, such as input from focus groups, staff, and the general public, to determine whether current capacities are adequate for specific component types.

One example is highlighted in red. In the case of basketball courts, there was some public input gathered during the course of this study to indicate that the availability of basketball courts was limited in Stafford County. This would suggest that a ratio of 1 court per 34,558 people was not adequate to meet the needs of the residents. Further investigation may be required to determine a more appropriate ratio. It may also be that the existing courts are not well distributed throughout the County. The inventory database indicates that the four courts are located virtually adjacent to each other at St. Clair Brooks and John Lee Pratt Memorial Parks in Southern Stafford County. This leaves North Stafford County residents to find other alternative providers or a significant travel distance for outdoor basketball opportunities. As basketball courts are not significant in size, this need could be met by the addition of courts at locations in the northern part of the County. It should be noted that ballfields and multi-purpose fields were addressed in Stafford County Parks Utilization Plan Phase I: Athletic Fields, and are not included in the following analysis.

Using this analysis, it is apparent that based on projected population growth and current ratio of components to population, Stafford County residents would need access to a number of additional components by 2019 to maintain the current level of service. Since schools and some alternative providers were included in this analysis, it is expected that additional components would also be made available by a variety of providers and not be the sole responsibility of Stafford County Parks and Community Facilities. One of the many limitations this type of analysis is that it is difficult to account for the limited access and availability of school facilities and components.

Another popular and traditional analysis is a simple total acres of park land to population ratio, often shown per one thousand people. Based on the current GIS data, there are approximately 725 acres of developed or accessible park land owned by Stafford County. (This calculation does not include the two boat ramps or associated reservoirs or the currently undeveloped properties at Musselman Park or Mountain View Road Frontage Property.)

Current Developed Park Acres:	725
Divided By:	÷
Current Population in Thousands:	<u>(138,230÷1,000)</u>
Current Ratio of Park Land to Population:	5.24 acres per 1,000 residents

Based on a projected population of 163,923 the County would need to add an additional 135 acres by 2019 of developed park land to maintain the same level of service by 2019.

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Table 16: Capacities LOS for Community Components

		Aqua Feat, Pool	Aqua Feat, Spray	Backstop, Practice	Ballfield	Basketball	Concessions	Disk Golf	Dog Park	Event Space	Historic or Cultural Feature	Horseshoes	Loop Walk	MP Field, All Sizes (note actual number may vary depending on field layout)	Multiuse Court	Pavillion, All Sizes	Picnic Grounds	Playground, All Sizes	Skate Park	Tennis	Track, Competition	Volleyball	Developed Park Acres
INVENTORY																							
Stafford County		2	1	1	22	4	5	1	1	3	12	8	2	28		26	5	7	2	7		3	725
Schools				2	31								4	50	16			18		23	10		
Select Providers			1				3							20				1				3	0
Total		2	2	3	53	4	8	1	1	3	12	8	6	98	16	26	5	26	2	30	10	6	725
CURRENT RATIO PER POPULATION																							
CURRENT POPULATION 2014	138,230																						
Current Ratio per 10,000 Population		0.14	0.14	0.22	3.83	0.29	0.58	0.07	0.07	0.22	0.87	0.58	0.43	7.09	1.16	1.88	0.36	1.88	0.14	2.17	0.72	0.43	5.24
Population per component		69,115	69,115	46,077	2,608	34,558	17,279	138,230	138,230	46,077	11,519	17,279	23,038	1,411	8,639	5,317	27,646	5,317	69,115	4,608	13,823	23,038	191
PROJECTED POPULATION - 2019	163,923																						
Total # needed to maintain current ratio of all existing facilities at projected population		2	2	4	63	5	9	1	1	4	14	9	7	116	19	31	6	31	2	36	12	7	860
Number that should be added to achieve current ratio at projected population		0	0	1	10	1	1	0	0	1	2	1	1	18	3	5	1	5	0	6	2	1	135

GRASP® Index for Specific Components

A capacities analysis is based purely on the quantity of assets without regard to quality or functionality, with higher level of service achieved only by adding assets regardless of the condition or quality of those assets. In theory, however, service provided by assets should be based on their quality as well as their quantity.

For example, in Stafford County, playgrounds currently score at a total GRASP® score of 38 and have a GRASP® Index of 0.3. Based on population projections by the year 2019, Stafford County would need to provide an additional 7.1 points worth of GRASP® scoring through playgrounds to maintain the current level of service per capita. Increases in GRASP® score can occur through upgrades to current components, addition of new components, or a combination of upgrades and additions. For reference, a typical component located in a typical park with typical comfort and convenience modifiers equates to a GRASP® score of 4.8 points. On the other hand, as discussed earlier in the capacities analysis, basketball which currently scores at 33 with a GRASP® index of 0.2 has been identified as not currently meeting the needs of the entire County may actually require more than the 6.1 additional GRASP® score to meet the current and future needs of residents.

This is especially useful in communities where the sustainability of the parks and recreation system over time is important. In the past, the focus was on maintaining adequate capacity as population growth occurred. Today, many communities are reaching build-out, while others have seen population growth slow. The focus in such communities has shifted to maintaining current levels of service as components age or become obsolete, or as needs change. The GRASP® Index can be used to track level of service under such conditions over time.

Table 17 shows the GRASP® Indices for the various components based on the 2013 population.

The authors of this report have developed a tool that incorporates both quantity and quality for any given set of assets into a single indicator called the GRASP® Index. This index is a per capita ratio of the functional score per population in thousands.

The GRASP® Index can move up or down over time as either quantity or quality changes. For example, if all of the playgrounds in a community are allowed to deteriorate over time, but none are added or taken away, the LOS provided by the playgrounds is decreasing.

Similarly, if all of the playgrounds are replaced with new and better ones, but no additional playgrounds are added, the LOS increases even though the per-capita quantity of playgrounds did not change.

Table 17: GRASP® Community Component Index

Projected Community Components GRASP® Index 2019					
	Current Population 2013	138,230		Projected Population 2019	163,923
	Total GRASP® Community Score per component type	GRASP® score per 1000 population (GRASP® Index)		Total GRASP® score needed at projected population	Additional GRASP® score needed
Aqua Feat, Pool	19.5	0.1		23.1	3.6
Ballfield	251.0	1.8		297.7	46.7
Basketball	33.0	0.2		39.1	6.1
Event Space	19.8	0.1		23.5	3.7
Historic or Cultural Feature	87.6	0.6		103.9	16.3
Horseshoes	47.0	0.3		55.7	8.7
MP Field, all sizes	193.0	1.4		228.9	35.9
Pavillion, all sizes	175.0	1.3		207.5	32.5
Picnic Grounds	23.6	0.2		28.0	4.4
Playground, all sizes	38.0	0.3		45.1	7.1
Tennis	39.0	0.3		46.2	7.2
Water Access, Developed	77.1	0.6		91.4	14.3

Findings Summary

The findings of this study emerge from public, staff, and stakeholder input via public meetings and focus groups, in addition to the GRASP® Level of Service analysis. The following summary gathers all of these combined findings into a bulleted format for simplicity.

Assessment and GRASP® Analysis Summary

Stafford County Parks and Facilities are:

- Faced with inadequate parking during peak times of usage:
 - This creates user conflict and safety concerns during programmed events.
- Making progress on ADA accessibility:
 - While there are ongoing efforts to implement an ADA transition plan, the system is not fully ADA compliant.
- Burdened by some outdated facilities and components:
 - Some components and/or facilities are nearing or have reached life expectancy.
- Lacking bike/run opportunities (e.g. multi-use trails):
 - There is currently a lack of connected trails county-wide. Most existing trails are contained within existing parks.
- Limited in programming opportunities due to underdeveloped sites:
 - Lack of adequate infrastructure or lack of capacity limits several amenities or facilities.
- Lacking in “destination” components:
 - Remaining consistent with findings from Phase I: Fields Assessment, that identified the importance of multiple fields at single facilities as destinations, it is important that a regional/county park system provide “destination” amenities.
 - Schools, Homeowner Associations, and other providers should be relied upon to provide “neighborhood” level of service and thus allow Stafford County to concentrate its efforts and resources on a larger, regional park level of service.
- Lacking in development at a level to warrant travel distance and effort to utilize the facilities:
 - Comfort and convenience amenities should accommodate the extended stay of users choosing to travel extended distances.
 - Amenities such as restrooms, shade, access to drinking water, seating, picnic tables, etc., increase the probability that a family will stay longer and more comfortably.

Areas of Focus

- Focus attention on improving and upgrading existing facilities first.
- Make each park a unique destination and give people a reason to go and stay for extended periods of time, as Stafford County residents are reliant on motor vehicles to access parks:
 - Focus more on destination level facilities.
 - It is ok to have a small playground as an amenity to a sports field complex. The sports complex is “the” destination.
- Focus new park improvements and new development in areas with higher population density and lower level of service.
- Identify key County services and focus on those services in adding new or updated amenities.
- Some activities could be offered at a larger scale and in turn have positive economic impacts, for example tennis complexes (or athletic field complexes, addressed in Phase I):
 - While there is no USTA standard, tennis facilities range from 6 to 12 courts and include a championship level, center court. Include other amenities such as pavilions, restrooms, concessions, playgrounds, etc.
- There continues to be a need for inclusion of Stafford County Schools to meet the recreational needs of users county-wide as a supplement to Stafford County Parks.

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V. Great Things to Come - Recommendations and Action Plans

Recommendations

Using the findings from throughout this process, including the Key Issues Matrix, a summary of all research, the qualitative and quantitative data, and the GRASP® LOS analyses, and input assembled for this study, a variety of recommendations have emerged to provide some guidance in consideration of how to improve parks and recreation opportunities in Stafford County. This section describes ways to enhance the level of service and the quality of life through:

- Improvement of organizational enhancements
- Financial improvements
- Increased programming
- Enhancing existing sites and
- Future development of new facilities

Programs and Service Delivery

- Provide inclusion and adaptive programming for special needs citizens.
- Increase teen programming emphasis and outreach.
- Increase enrichment programming for children and adults.
- Increase programming promoting health and wellness including the encouragement of walking and bicycling.
- Increase non-sports programming.
- Consider Youth Sports Entry Programming such as Quick Start Tennis and 1st Tee Golf.
- Align programming with demographics of the County.
- Review scheduling methodologies to improve traffic turnover and congestion.
- Determine appropriate locations for maintenance facilities to support parks and adjacent off site school fields.

Promote Public Health

PRCF can take an increased role and be a great catalyst for promoting public health in the community by including public health and wellness as a priority in partnerships and in relevant marketing materials.

The Surgeon General of the United States released a “Call to Action” in September 2015 calling for the promotion of walking and walkable communities. As pointed out repeatedly throughout this report, obesity and chronic disease are increasing challenges in the population of the United States. The call to action specifically identifies the role that parks and recreation agencies can play in achieving increased physical activity. Promoting physical activity, including walking, biking, and active lifestyles is a natural role for PRCF. The department is uniquely positioned to serve as leaders in this initiative through programs and encouraging walkability through the establishment of trails connecting parks and communities. The entire Surgeon Generals Call to Action can be found here:

<http://www.surgeongeneral.gov/library/calls/walking-and-walkable-communities/index.html>

PRCF should consider partnering with public health organizations and/or local medical institutions in Healthy Communities Initiative (www.gpred.org/hcrg) and funding sources. A Sample Partnership Policy can be found in **Appendix B**.

Include Successful Parks and Recreation Trends in Future Offerings

The Stafford County PRCF should continuously track and review existing and future industry trends that are successful and can potentially be implemented. There are numerous resources particularly in Parks and Recreation magazines, websites, professional contacts, National Recreation and Parks Association (NRPA), Virginia Recreation and Parks Society (VPRS), etc. to keep track of what is new, different, and successful within the Park and Recreation industry.

Facilities

Existing Facilities

- Maintain and improve existing facilities and amenities including upgrades to outdated amenities that do not function well especially in areas of low current service.
- Continue to improve level of service through upgrades or additional components.
- Improve availability of shade near park amenities.
- Continue improving ADA accessibility at all facilities.
- Add/improve security and parking lighting at many park amenities.
- Create an individual identity for each park.
- Recognize that the park system is a regional park model, with neighborhoods being served by alternate providers such as schools and HOAs.

New Facilities or Major Capital Renovations

- Replace the inadequate Gymnastics Center.
- Add additional indoor programming areas.
- Increase the number and distribution of basketball opportunities, indoors and outdoors, throughout the County.
- Provide additional picnic pavilions for rentals.
- Add additional dog parks throughout the County.
- Examine opportunities for trail connectivity to facilities and parks to improve walkability.

Finance

- Establish a basis for user fees and assessment fee standards.
- Implement a preventive maintenance and lifecycle replacement schedule for physical assets.
- Consider a bond issue for capital improvements.
- Seek additional partnerships, sponsorships, grants, and donations.
- Consider establishing a foundation to receive and administer donations and sponsorships.

Organizational

- Improve marketing of programs, activities, and events.
- Assign Therapeutic Recreation responsibilities to a single position.
- Assign responsibility for Partnerships/Sponsorships/Grants/Donations.
- Update and improve the operating relationship with the schools.
- Improve staff training.

The following section of the report provides a discussion of the recommendations in greater detail.

Increase Programs and Service Delivery

Explore Increasing the Number of “Non-Sports” Program Opportunities for Family, Youth, Seniors, Teens, and Special Needs Populations

While youth athletics has long been the driver behind local recreation and parks agencies throughout the United States, the public would like to see PRCF provide additional programs for families, youth, seniors, teenagers, and special needs. Programming can be increased for special needs by expanding offerings to all types and ages of special needs patrons.

As part of the program review process, continue to monitor participation and demand for programs and adjust to meet the needs of the community in all these demographic areas of participation. Periodic focus group discussions with these different types of groups will provide good feedback as to their satisfaction as well as new programming opportunities.

Expand Program Opportunities in Fitness, Wellness, Intergenerational, and other Non-Sports Activities.

As Stafford County updates, improves, or repurposes existing facilities, it should take into consideration the demand for fitness, wellness, intergenerational (teens with seniors), and non-sports programming opportunities for all ages.

Recognize the New Demand for Senior Programs

Increasingly, those individuals reaching traditional senior age groups bring more active and diverse interests. This demographic is seeking health, wellness, and fitness activities beyond the traditional offerings of senior programs. Additionally, many seniors continue to be a part of the work force in their senior years, creating a demand for programming during traditional non-work hours.

Explore Offering More Programs at Convenient Times for Citizens

As popularity in program offerings and activities increases, continue to look for opportunities to expand adult programs around working hours and commuting citizens' schedules. Increasing adult programming during non-working hours includes offering adult programs evenings during the week and weekends. Commuters need ample time to get home from work, eat, and change clothes in time for evening programs.

Increase the Number of Neighborhood and Cultural Special Events

Parks build communities. In order to encourage and establish the community center concept of parks in the minds of the residents, PRCF can increase the number of smaller special events for neighborhoods and different types of cultural audiences. The distribution and variety of existing facilities provides many opportunities to host neighborhood and cultural special events throughout the community. In addition, strategic use of special events, festivals, and programming may help activate some spaces, and therefore, help to promote safer more secure parks.

Any new events will draw more users and traffic to park facilities thus creating more “eyes on the park” situations that will create a positive perception of safety in these areas of Stafford County. Area merchants, restaurants, and hotels can be potential sponsors and help promote these activities to their patrons.

ADA Title II Compliance

While the Americans with Disabilities Act (ADA) of 1990, with modifications to include public entity program access under Title II of the act taking effect in 2014, has led to greater access to employment, transportation, public services, and public accommodations for people with disabilities, some of the esoteric regulations related to program access have been more challenging to apply to public park and recreation settings. For the practitioner, it has not been easy to translate the abstract concept of “program access” into practice.

Federal accessibility standards for buildings and facilities exist and continue to evolve with very specific scoping and technical provisions. These standards can be applied to the design and construction of recreation facilities, visitor centers, and even outdoor areas for recreation. However, the requirements for “program access” under Title II of the ADA are not as specific. This often leaves park and recreation professionals to their own accord to make programmatic and administrative decisions based on what information is readily available to them at the time.

The “program access” standard requires entities to either modify their policies, practices, and procedures, or provide auxiliary aids and services to ensure access for people with disabilities. Program access includes access to goods, services, activities, or any other offering of a federal, state, and local government or business. “Programs” under the program access standard do not necessarily have to be structured or staffed. Programs could range from structured and staffed tennis lessons to an unstructured walk along a nature trail with wayside exhibits. While federal technical assistance materials provide some examples of program access for guidance, the concept of program access is still quite abstract. Moreover, what constitutes accessible “programs” or the “best practice” to ensure persons with disabilities will have equal access to recreation and leisure programs, has become increasingly more complex and difficult to ascertain, as the demand for inclusive recreation programs continues to grow. Best practices in accessibility can be defined as: *those common, identifiable procedures, attitudes and behaviors*, which exceed the minimum standard represented in the practice and delivery of accessible recreation programs and facilities.

Striving to deliver accessible recreation and leisure programs that exceed minimum accessibility standards is often difficult for professionals to implement. The literature is limited to ADA technical assistance manuals issued by the U.S. Department of Justice with few examples related to recreation.

Provided in **Appendix C** are examples and materials from a model inclusion program.

Facility Improvements

While the majority of the analysis for this study is based on current level of service relative to the current population, population projections for Stafford County indicate significant growth over the next five years. Addressing current system deficiencies in addition to providing parks and recreation services and assets for a growing community is challenging.

Level of Service Improvements

Findings of GRASP® analysis provide some guidance in consideration of how to improve recreation in Stafford County. **Gap areas**, those that either fall below the minimum standard threshold or provide no service, offer good opportunities for improvement. Although land acquisition and large-scale capital investment is sometimes needed, there are alternatives. This section discusses recommendations to enhance level of service through improvement of existing sites, development of new facilities, and potential partnerships.

Low-Score Components

The easiest and most obvious way to raise level of service is to improve **low-score components**, those that were scored down during the inventory and assessment because they do not meet expectations. Such improvements can involve repair, refurbishment, or replacement of existing components at a site that are in need of some attention. A full, detailed account of each park and its components and modifiers scoring are included in a separate staff level document. Additionally, low scoring components and modifiers can be found in this document.

Continued Component Assessment and Life Cycle Replacement Plan

Maintaining and improving existing facilities ranked as high priority goals in the next 5 to 10 years based on public input. Developing a method or process for continued assessment of existing facilities is key to monitoring existing resources. The assessment process used for this plan involves scoring of all assets to account for condition and functionality. Those components with low-scores may be addressed individually and will serve to improve level of service. The Department may wish to continue using a similar type of scoring system and asset monitoring. PCRf has recently engaged in a computerized asset Life cycle module. Life cycle replacement should also be factored into the yearly maintenance, assessment, budgeting, and replacement strategy.

Addressing Low-Scoring Components

The inventory process for the master plan included rating components throughout the system on their functionality. Components whose functionality fell below expectations were identified and scored with a “1.” A list of these can easily be extracted from the inventory dataset. By raising the score of a component, the Level of Service in your community is also raised, but deciding how to do this may seem daunting. A strategy for addressing the repair/refurbishment/replacement or re-purposing of low-functioning components should begin with the following steps:

- A. Determine why the component is functioning below expectations. Was it poorly conceived in the first place? Is it something that was not needed to begin with? Is it the wrong size, type, or configuration? Is it poorly placed, or located in a way that conflicts with other uses or detracts from its use? Have the needs changed in a way that the component is now outdated, obsolete, or no longer needed? Has it been damaged? Or, has the maintenance of the component simply been deferred or neglected to the point where it no longer functions as intended?

Another possibility is that the component was scored low because it is not available to the public in a way that meets expectations. For example, a facility might be rated low because it is leased to a private group and access by the general public is limited. This may be a perfectly acceptable situation and appropriately scored. The service is at a lower value due to limited access.

Another example would be when a component is old, outdated, or otherwise dysfunctional, but has historical or sentimental value. This might be an old structure in a park such as a stone barbecue grill, or other artifact that cannot be restored to its original purpose, but which has historic value.

B. Depending on the answers from the first step, a strategy can be selected for addressing the low-functioning component:

- If the need for that type of component in its current location still exists, then the component should be repaired or replaced to match its original condition as much as possible. Examples of this would be playgrounds with old, damaged, or outdated equipment, or courts with poor surfacing or missing nets.
- If the need for a specific type of component has changed to the point where the original one is no longer suitable, then it should be replaced with a new one that fits the current needs. For example, if a picnic shelter is too small for the current level of demand, it may be replaced with a new, larger one.
- If a component is poorly located, or was poorly designed to start with, consideration should be given to relocating, redesigning, or otherwise modifying it. An example would be an amphitheater next to a street that was once small and quiet but is now loud and busy. The noise from the street makes it undesirable to use the amphitheater for its intended purpose. If there is still a need for this type of facility at this park, then consideration should be given to relocating it or redesigning it to provide screening from traffic and other noise.
- If a component is no longer needed because of changing demands, then it should be adapted or removed. Some inline hockey rinks may fall into this category. If a rink has been allowed to deteriorate because the community has no desire for inline hockey, then it could be repurposed into some other use such as a basketball or tennis court, multi-use play-pad, or perhaps a skate park. It could even become something unusual, like a trike-track course. Or it could become the surface for a large group picnic shelter. Another possibility might be to install outdoor fitness stations and make it an “outdoor gym.”

The choice of what to put in the rink’s place should be made with input from the community. This could be done with a simple intercept survey, door-hung questionnaire, or by contacting a neighborhood organization. It makes no sense to replace something that the neighborhood no longer needs with something else it doesn’t need.

If no appropriate alternative use for the rink or the space it occupies is identified, it should be removed to avoid a blighted appearance, and the space should be integrated into the rest of the park with landscaping.

- C. It is possible that through ongoing public input, and as needs and trends evolve, new needs will be identified for existing parks. If there is no room in an existing park to meet new needs, the decision may be made to remove or re-purpose an existing component, even if it is quite functional. An example of this could be found in many communities over the past couple of decades. As the popularity of tennis declined and demand for courts dropped off, perfectly good courts were sometimes converted into skate parks or inline rinks. In most cases, this was an interim use, intended to satisfy a short-term need until a decision could be made to either construct a permanent facility or let the passing fad fade. The need for inline rinks now seems to have diminished, while temporary skate parks on tennis courts have been moved to permanent locations of their own and have become more elaborate facilities as skateboarding and other wheel sports have grown in popularity and permanence.

Another example of this could be the re-purposing of an unused ball diamond into a dog park. The ball diamond is well-suited for use as a dog park because it is already fenced, and the combination of skinned infield where the dogs enter and natural grass in the outfield where traffic is spread out is ideal.

It is likely that in time this facility will either become a permanent facility designed specifically to meet the needs of people recreating with their dogs, or such a facility will be constructed elsewhere to suit that purpose. Or, it could turn out that dog parks fade in popularity like inline hockey rinks, or are replaced with some other facility that dog owners prefer even more than the current dog park model. Meanwhile, the use of the ball diamond for this purpose is a good interim solution.

Trends to keep an eye on while deciding what to do with low-functioning facilities, or determining how to make existing parks serve the needs of residents as highly as possible, include things like:

- Dog parks continue to grow in popularity. This may have something to do with an aging demographic in America, with more “empty-nesters” transferring the attention they once gave to their children, who are now grown, to their pets. It is also an important form of socializing for people who may have once socialized with other parents in their child’s soccer league, and now that the kids are grown, they are enjoying the company of other dog owners at the dog park. For singles, a dog park is a good place to meet people.
- Skateboarding and other wheel sports continue to grow in popularity. Making neighborhood parks skateable and distributing skating features throughout the community provides greater access to this activity for younger people who cannot drive to a larger, centralized skate park.
- A desire for locally grown food and concerns about health, sustainability, and other issues is leading to the development of community food gardens in parks and other public spaces.
- Sprayparks are growing rapidly in popularity, even in cooler climates. A wide and growing selection of products for these is raising the bar on expectations and offering new possibilities for creative facilities.
- New types of playgrounds are emerging, including discovery play, nature play, adventure play, and even inter-generational play. Some of these rely upon movable parts, supervised play areas, and other variations that are different from the standard fixed “post and platform” playgrounds found in the typical park across America.
- As a lower impact alternative to tennis, the sport of pickleball has gained in popularity, particularly among older Americans. Striping can be added to existing tennis courts, or outdated facilities such as inline hockey rinks may be retrofitted.

- Events in parks, from a neighborhood “movie in the park” to large festivals in regional parks, are growing in popularity as a way to build a sense of community and generate revenues. Providing spaces for these could become a trend.
- Integrating nature into parks by creating natural areas is a trend for a number of reasons. These include a desire to make parks more sustainable and introduce people of all ages to the natural environment. An educational aspect is an important part of these areas.

Low-Score Modifiers

In scoring inventory locations, additional consideration was also given to basic site amenities, called **modifiers**. These are features that support users during their visit such as quality design and ambience, drinking fountains, seating, BBQ grills, security lighting, bike racks, restrooms, shade, access, and parking, among others. These inform overall GRASP® scoring as more and better modifiers serve to boost overall GRASP® values. In an inventory assessment, any modifiers that do not meet expectations are scored down. Such modifiers may be in need of repair, refurbishment, or replacement that would serve to increase the overall scoring of all the components within the park.

Several of the “modifiers” in the assessment process are directly related to the beautification of parks. Increasing scores for “design and ambience” as well as ornamental and seasonal plantings will not only increase the level of service of an individual park and its amenities but also help to “increase beautification of public spaces.” These improvements would also help in creating a sense of identity at individual parks throughout the system.

“Booster” Components

Another way to enhance existing assets is through the addition of **booster components** intended to “boost” the level of service in gap areas by adding new components to existing recreation sites.

Adding components at existing neighborhood parks that scored below threshold is a great way to increase the level of service without acquiring additional land. Adding a shade shelter at an existing playground, for example, not only increases the level of service of the playground but also offers opportunities for a small family picnic or snack while at the park. In addition, adding shade to parks ranked high throughout the public input process of this study. The addition of booster components would also increase the level of service in low service areas nearby to approach threshold level scoring.

Increasing Safety and Park Security

Public perception of safety and security issues is often as much about marketing and promotion as it is about police presence and patrols. Stafford County can work with local law enforcement, park neighbors, and business owners to continue to patrol areas of concern. The County can also track and publicize the small number of incidents that actually occur. The most effective way to make parks safe is to increase usage and promote positive activities in the parks. Additional steps can be taken to improve sight lines, install low level safety lighting, add trail mile markers, add map stations, and potentially install emergency call stations in parks.

The Department should monitor reports of vandalism and loitering to pinpoint areas within the park and trail system where negative behavior tends to occur. Based on this information, the Department can focus security improvements where the negative types of activities are creating an unsafe perception. In addition, strategic programming efforts can help improve safety in parks. One such approach, *Crime Prevention Through Environmental Design* (CPTED, pronounced “sep-ted”) is defined as a multi-disciplinary approach to deterring criminal behavior through environmental design. CPTED strategies rely upon the ability to influence offender decisions that precede criminal acts by affecting the built, social, and administrative environment. This type of initiative is known by various labels or names worldwide, such as *Designing Out Crime* and other acronyms. More information can be found at www.cpted.net.

ADA Transition Plan and Compliance

According to the ADA.gov website, “Access to civic life by people with disabilities is a fundamental goal of the Americans with Disabilities Act (ADA).” To ensure that this goal is met, Title II of the ADA requires State and local governments to make their programs and services accessible to persons with disabilities.” “One important way to ensure that Title II’s requirements are being met in cities of all sizes is through self-evaluation, which is required by the 2014 ADA regulations. Self-evaluation enables local governments to pinpoint the facilities, programs, and services that must be modified or relocated to ensure that local governments are complying with the ADA.” Transition plans are also required to implement needed changes identified during the self-evaluation process. Ongoing self-evaluation and development of a comprehensive transition plan must be a priority of PRCF. See **Appendix D** for details.

HOA Partnerships

A heavy reliance on alternative providers, particularly homeowners associations, has been identified and highlights the need for a mechanism to help establish standards for recreation opportunities offered by such providers. A wide variety of types and broad range in quality of amenities was found throughout Stafford County. Further, public access to these privately owned facilities is often perceived to be limited to nearby residents. One option to help with both maintaining reasonable standards and promoting full public access is a partnership between the department and individual homeowners associations. A grant program to help underfunded parks within developments maintain certain standards without burdening the County with maintenance of a vast inventory of small neighborhood parks could be investigated as an option. See **Appendix E** for additional information.

School Partnerships

School partnerships can provide additional options for public recreation. Much of the traditional “neighborhood park” availability in Stafford County can be addressed through the schools which are, by nature, distributed throughout the county and generally close to the target population. However, their limited availability and sometimes unwelcoming accessibility often makes neighbors less likely to use them. One way to address this issue is to improve the existing partnership with schools to promote use of school facilities by the community.

Environmental cues and on-site community programming can make school facilities more inviting. Site features such as welcome signage or an entry gateway on school grounds can make neighbors feel more welcome. A clear message about school hours and public access can be helpful to those planning a visit. Organized events or drop-in sessions are also helpful in creating awareness of school grounds as community assets.

Learning Landscapes, a program developed by faculty and students at the University of Colorado at Denver engages the local community to envision, plan, build, and maintain custom playgrounds at neighborhood schools. The intention is to extend learning opportunities beyond the school walls and into the community. Redeveloped school grounds typically include demonstration gardens, yard games, art, shade features, and outdoor classroom facilities as well as play equipment. Volunteers are put to work in the planning and construction of these new facilities alongside emerging professionals and school personnel. The result is a sense of community investment and ownership in these assets such that they better serve nearby residents. This program serves to foster stronger ties between schools and neighbors with open lines of communication and a commitment to shared resources. Such a program can have a positive impact on the role that school ground facilities play in neighbors' daily lives, and as such elevate the level of service for the area. The Learning Landscapes webpage (<http://www.learninglandscapes.org/>) describes the program in this way:

“Learning Landscapes leads UCD students, elementary schools, and community members in the redesign of schoolyards into fun, multi-use parks designed to reflect the culture of the surrounding community. The Learning Landscapes project helps reconnect communities with neighborhood schools.



“By listening and actively involving the school community throughout the planning, design, construction, and maintenance of the Learning Landscape schoolyard, each school is asked to form a Learning Landscape team to help inform design and programming decisions as well as keep a watchful eye for vandalism and maintenance issues after construction is complete. The Learning Landscapes team recruits students, parents and surrounding community help to build, maintain and improve the Learning Landscape. Each new Learning Landscape has a volunteer build day where the school and community volunteers develop a sense of ownership and civic pride by creating outdoor artwork planting gardens, laying sod, or building play equipment. We document and distribute site-specific resources for educators and community members on the outdoor educational elements unique to each Learning Landscape schoolyard. Promoting the programmatic use of the Learning Landscape is critical for the long-term viability and sustainability of these projects.”

Recreational Connectivity

Non-motorized access to recreation has become a priority for communities nationwide in recent years. As a result, the importance of trails in a recreation system cannot be overstated. Trails have a positive impact on public health, local economy, quality of life, and the environment. Today in the United States one-third of the population cannot drive due to a variety of factors such as age, financial limitations, or visual impairment. A well planned trail system creates a viable alternative to getting in the car. Trails are becoming ever more essential infrastructure that define a community.

Currently, Stafford County is working to create some trail corridors and localized trail systems. A need exists for significant improvement, as trail connections are rather limited.

Even the most well-planned, extensive trail system has to start somewhere. Developing a trail system takes time and careful planning. The scope of creating and maintaining such a network is a substantial undertaking that involves many players. This often includes school districts, user groups, county offices, state entities, federal agencies, and/or private landowners among others. Other potential partners can include utility companies, law enforcement, public works departments, and public transit operators as well as parks and recreation colleagues. The types of collaboration necessary to build a trail system are not without their challenges, yet can yield lasting partnerships that benefit the community.

A more in-depth description of several aspects of successful trail systems and recommendations for building trail networks can be found in **Appendix F**.

Public Transportation

A final consideration for recreational connectivity is public transportation. Though this falls outside the realm of parks and recreation, many recreational users enjoy the convenience that public transit affords. Partnership with the local transit provider is recommended to ensure that future public transit planning decisions may accommodate access to park lands, trails, and common destinations such as schools and recreation centers to best serve the community.

Additional Resources

The National Park and Recreation Association (NRPA) recently compiled summaries of current research and best practices on active transportation and safe routes to parks. These and other valuable resources may be found on the NRPA website: <http://www.nrpa.org/research-papers/>

An informative summary of public use of school grounds may be found here: <http://publichealthlawcenter.org/topics/healthy-eating/shared-use-school-property>

Developed by faculty and students at the University of Colorado at Denver, the Learning Landscapes initiative is a proven low cost way to foster a greater connection between local residents and neighborhood schools. More information may be found here: <http://www.learninglandscapes.org/>

The City of Minneapolis provides a helpful description of advisory bicycles lanes and additional resources: <http://www.minneapolismn.gov/bicycles/advisory-bike-lane>.

New Facilities or Major Capital Renovations

Gymnastics Center

The most significant need for new facility development is the example of the current gymnastic program. This facility is prime for consideration in this discussion. The gymnastic program is an extremely successful and popular program offering of the PRCF. This is in spite of an inadequate, aging facility. Design, operational, environmental and parking deficiencies at this site require attention. Rest rooms, office space, storage space, instructional space, and classroom/activity space are all limited.

The public engagement for this project yielded many comments on the need for replacement of the current facility. Staff has provided the consultant with a concept plan that would address the current needs and allow expansion of the successful program.

Desired is a 55,000 to 67,000 square foot facility with adequate instructional and support spaces to accommodate the current programming and allow for expansion and additional revenue producing activities. The facility should also address another identified PRCF need for indoor classrooms by utilizing the activity and classroom space for department programs.

Of course, this is a significant undertaking but the following brief analysis makes the project worthy of consideration:

Cost range \$6.8 million to \$8.7 million

- Current construction cost per square foot in Mid-Atlantic region \$125 - \$130 per square foot, exclusive of land cost

Financial resources available:

- Average net revenue FY 13, 14, and 15: \$79,090.
- Revenues are net of annual rent on existing facility: \$170,000.
- Staff estimates increased net revenues of approximately \$110,500 with improved facility.
- Potential of \$359,590 available annually to service debt.

This is for discussion purposes only and does NOT represent an engineer's estimate. Land costs, site development and the bidding climate will have significant influence on total development costs.

Other items identified for new development are of smaller scope and can be addressed via the Capital Improvement and Cash Capital Programs. These items include:

- Additional picnic pavilions for rentals
- Dog Parks
- Additional basketball court development, both indoors and outdoors
- Improved biking and running opportunities
- Indoor activity/classroom space if not addressed in the Gymnastic Center redevelopment

Augment Department Finances

Consider Enhanced funding for Facility Improvements

From the responses received in the public engagement of this project, the community appears willing to utilize a bond referendum to pay for the facility improvements and additional facilities recommended in this plan over the next several years. A campaign for a community investment may be a successful way of implementing the long-term recommendations contained here. The other message heard in the public engagement was the importance of informing and educating the public as to exactly what they will be asked to pay over a certain period of time for exactly what they will receive. This is key to passing a successful bond referendum.

Implement a Basis for User Fees and Assessment Fees

Establish a user fee and cost recovery methodology. By engaging in a community process, a consensus to implement and utilize user fees and assessment fees for PCRF activities can be based on a value received by the participant for the services with a personal benefit versus a community benefit. An example of such a methodology is the Pyramid Cost Recovery in **Appendix G**.

Pursue Grant Opportunities

It would be wise for the PCRF to pursue any and all grant opportunities at the federal, state, regional, and local levels. There are still numerous grants available to the department at all levels to assist in the funding of the recommendations of this assessment.

A grant writer position should be added to the PCRF staff (or be contractual) to create consistent year round grant research, writing, submitting, and tracking. This additional position can enhance the financial abilities to implement this plan through federal, state, regional, and local grant opportunities. A contractual grant writer may be considered for this specialized task, perhaps combined with other agencies of the Stafford County Government.

Increase Local Partnerships

The PCRF can increase local partnerships by fostering relationships with local entities, other agencies and alternative recreational service providers, the school district, and the Economic Development Chamber.

The PCRF should consider partnering with public health organizations and/or local medical institutions in a Healthy Communities Initiative (www.gpred.org/hcrg) and as possible funding sources.

A Sample Partnership Policy can be found in **Appendix B**.

Increase Sponsorships

The Department currently has entered into some sponsorship arrangements for special events and activities. Efforts should continue to build on existing sponsorships as well as pursue local entities to support events and the scholarship fund within a foundation. All existing and future sponsorships are accurately portrayed in a signed sponsorship agreement (Sample Sponsorship Policy can be found in **Appendix I**).

Consider the Creation of a Foundation

A foundation associated with the Department but with a separate Board of Directors can serve as a conduit to accept and administer tax-advantaged donations, grants, and sponsorships for the benefit of the development and operations of PCRF. An additional benefit of a foundation is the role the organization can play in marketing the department. Sample bylaws and constitution are included in **Appendix J**.

Enhance Organizational and Operational Efficiencies

Improve Marketing and Communication of Activities

There is a need to create a Marketing Plan for PRCF to guide the effort to increase awareness of program offerings and recreational opportunities including all the recommendations in this plan for programs, services, and facility upgrades. The Marketing Plan should be updated at least every two years in order to stay current with improved and/or new strategies to communicate with the community.

The marketing and communication of PRCF activities should be enhanced with a focused effort on adopting open lines of communication and effective meetings with partners and potential partners.

With a marketing plan in place, PRCF can then consider creating a branded program emphasizing the promotion of walking, walkability design, and the promotion of physical activity in Stafford County. Such a marketing effort can serve to establish PRCF as the lead organization for health and wellness in the County.

Revisit Joint Use of Schools

As recommended in the Phase I Field Utilization Study, there is a need to update the working relationship between PRCF and the school district. This need was also discussed in the 2014 Efficiency Study of Stafford County Public Schools that calls for the restructuring of the Community Use of Facilities policy and regulations to streamline the application process and centralize policy administration and fee collection in order to increase rental income and optimize cost recovery. The schools can and should play a vital role in the total recreational delivery system in the county. A relationship that recognizes the value of the use of all assets to the citizens is positive for all residents. Parks, playgrounds, fields courts and amenities do not need to be duplicated when joint development, utilization and access is encouraged.

Staff Responsibilities

Specific needs for staffing have been identified in these recommendations. These include:

- Assign Therapeutic Recreation responsibilities to a single position.
- Improve marketing of services with assignment of a public relations specialist.
- Assign responsibility for Partnerships/Sponsorships/Grants. This could be contractual, perhaps combined with other County agencies.

Appendix A – GRASP[®] History and Methodology

GRASP[®] Glossary

Buffer: see catchment area.

Catchment area: a circular map overlay that radiates outward in all directions from an asset and represents a reasonable travel distance from the edge of the circle to the asset. Used to indicate access to an asset in a level of service assessment.

Component: an amenity such as a playground, picnic shelter, basketball court, or athletic field that allows people to exercise, socialize, and maintain a healthy physical, mental, and social wellbeing.

Isolation analysis: an examination on a map of places within a study area that meet specific criteria, often included as part of a level of service assessment.

Geo-Referenced Amenities Standards Process[®] (GRASP[®]): a proprietary component-based methodology that takes quality and functionality of assets and amenities into account in a level of service assessment.

Level of service (LOS): the extent to which a recreation system provides a community access to recreational assets and amenities.

Low-score component: a component given a GRASP[®] score of “1” or “0” as it fails to meet expectations.

Low-service area: an area of a city that has some GRASP[®] level of service but falls below the minimum standard threshold for overall level of service.

Modifier: a basic site amenity that supports users during a visit to a park or recreation site, to include elements such as restrooms, shade, parking, drinking fountains, seating, BBQ grills, security lighting, and bicycle racks among others.

No-service area: an area of a city with no GRASP[®] level of service.

Perspective: a map or data quantification, such as a table or chart, produced using the GRASP[®] methodology that helps illustrate how well a community is served by a given set of recreational assets.

Radius: see catchment area.

Recreational connectivity: the extent to which community recreational resources are transitionally linked to allow for easy and enjoyable travel between them.

Recreational trail: a soft or hard surface trail intended mostly for leisure and enjoyment of resources. Typically passes through park lands or natural areas and usually falls to parks and recreation professionals for planning and management.

Service area: all or part of a catchment area ascribed a particular GRASP® score that reflects level of service provided by a particular recreational asset, a set of assets, or an entire recreation system.

Threshold: a minimum level of service standard typically determined based on community expectations.

Trail: any off-street or on-street connection dedicated to pedestrian, bicycle, or other non-motorized users.

Trail network: a part of a greater trail system within which major barrier crossings have been addressed and all trails are functionally connected by such things as crosswalks, pedestrian underpasses, and/or bridges. Typically separated from other trail networks by missing trail connections or by such barriers as roadways, rivers, or railroad tracks.

Trail system: all trails in a community that serve pedestrian, bicycle, and alternative transportation users for purposes of both recreation and transportation.

Transportation trail: a hard surface trail, such as a city sidewalk, intended mostly for utility in traveling from one place to another in a community or region. Typically runs outside of park lands and is managed by Public Works or other city utility department.

Composite-Values Level of Service Analysis Methodology

Analysis of the existing parks, open space, trails, and recreation systems are often conducted in order to try and determine how the systems are serving the public. A Level of Service (LOS) has been typically defined in parks and recreation master plans as the capacity of the various components and facilities that make up the system to meet the needs of the public. This is often expressed in terms of the size or quantity of a given facility per unit of population.

Brief History of Level of Service Analysis

In order to help standardize parks and recreation planning, universities, agencies and parks and recreation professionals have long been looking for ways to benchmark and provide “national standards” for how much acreage, how many ballfields, pools, playgrounds, etc., a community *should* have. In 1906 the fledgling “Playground Association of America” called for playground space equal to 30 square feet per child. In the 1970s and early 1980s, the first detailed published works on these topics began emerging (Gold, 1973, Lancaster, 1983). In time “rule of thumb” ratios emerged with 10 acres of parklands per thousand population becoming the most widely accepted norm. Other normative guides also have been cited as “traditional standards,” but have been less widely accepted. In 1983, Roger Lancaster compiled a book called, “Recreation, Park and Open Space Standards and Guidelines,” that was published by the National Park and Recreation Association (NRPA). In this publication, Mr. Lancaster centered on a recommendation “that a park system, at minimum, be composed of a core system of parklands, with a total of 6.25 to 10.5 acres of developed open space per 1,000 population (Lancaster, 1983, p. 56). The guidelines went further to make recommendations regarding an appropriate mix of park types, sizes, service areas, and acreages, and standards regarding the number of available recreational facilities per thousand population. While the book was published by NRPA and the table of standards became widely known as “the NRPA standards,” these standards were never formally adopted for use by NRPA.

Since that time, various publications have updated and expanded upon possible “standards,” several of which have been published by NRPA. Many of these publications did benchmarking and other normative research to try and determine what an “average LOS” should be. It is important to note that NRPA and the prestigious American Academy for Park and Recreation Administration, as organizations, have focused in recent years on accreditation standards for agencies, which are less directed toward outputs, outcomes, and performance, and more on planning, organizational structure, and management processes. In essence, the popularly referred to “NRPA standards” for LOS, as such, do not exist. The following table gives some of the more commonly used capacity “standards” today.

Commonly Referenced LOS Capacity “Standards”

Activity/ Facility	Recommended Space Requirements	Service Radius and Location Notes	Number of Units per Population
Baseball Official	3.0 to 3.85 acre minimum	¼ to ½ mile Unlighted part of neighborhood complex; lighted fields part of community complex	1 per 5,000; lighted 1 per 30,000
Little League	1.2 acre minimum		
Basketball Youth	2,400 – 3,036 vs.	¼ to ½ mile Usually in school, recreation center or church facility; safe walking or bike access; outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings	1 per 5,000
High school	5,040 – 7,280 s.f.		
Football	Minimum 1.5 acres	15 – 30 minute travel time Usually part of sports complex in community park or adjacent to school	1 per 20,000
Soccer	1.7 to 2.1 acres	1 to 2 miles Youth soccer on smaller fields adjacent to larger soccer fields or neighborhood parks	1 per 10,000
Softball	1.5 to 2.0 acres	¼ to ½ mile May also be used for youth baseball	1 per 5,000 (if also used for youth baseball)
Swimming Pools	Varies on size of pool & amenities; usually ½ to 2-acre site	15 – 30 minutes travel time Pools for general community use should be planned for teaching, competitive & recreational purposes with enough depth (3.4m) to accommodate 1m to 3m diving boards; located in community park or school site	1 per 20,000 (pools should accommodate 3% to 5% of total population at a time)
Tennis	Minimum of 7,200 s.f. single court area (2 acres per complex	¼ to ½ mile Best in groups of 2 to 4 courts; located in neighborhood community park or near school site	1 court per 2,000
Volleyball	Minimum 4,000 s.f.	½ to 1 mile Usually in school, recreation center or church facility; safe walking or bike access; outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings	1 court per 5,000
Total land Acreage		Various types of parks - mini, neighborhood, community, regional, conservation, etc.	10 acres per 1,000

Sources:

- David N. Ammons, *Municipal Benchmarks - Assessing Local Performance and Establishing Community Standards*, 2nd Ed., 2002
- Roger A. Lancaster (Ed.), *Recreation, Park and Open Space Standards and Guidelines* (Alexandria, VA: National Recreation and Park Association, 1983), pp. 56-57.
- James D. Mertes and James R. Hall, *Park, Recreation, Open Space and Greenways Guidelines*, (Alexandria, VA: National Recreation and Park Association, 1996), pp. 94-103.

In conducting planning work, it is key to realize that the above standards can be valuable when referenced as “norms” for capacity, but not necessarily as the target standards for which a community should strive. Each community is different, and there are many varying factors which are not addressed by the standards above. For example:

- Does “developed acreage” include golf courses”? What about indoor and passive facilities?
- What are the standards for skateparks? Ice Arenas? Public Art? Etc.?
- What if the community is urban and land-locked? What if it is a small town surrounded by open Federal lands?
- What about quality and condition? What if there is an abundance of ballfields, but they have not been maintained in the last ten years?
- And many other questions....

GRASP® (Geo-Referenced Amenities Standards Program)

In order to address these and other relevant questions, a new methodology for determining Level of Service was developed. It is a **component-based methodology** and has been applied in communities across the nation in recent years to provide a better way of measuring and portraying the service provided by parks and recreation systems. Primary research and development on this methodology was funded jointly by GreenPlay, LLC, a management consulting firm for parks, open space and related agencies, Design Concepts, a landscape architecture and planning firm, and Geowest, a spatial information management firm. The trademarked name for the composite-values methodology process that these three firms use is called **GRASP® (Geo-Referenced Amenities Standards Program)**. For this methodology, capacity is only part of the LOS equation. Other factors are brought into consideration, including *quality, condition, location, comfort, convenience, and ambience*.

To do this, parks, trails, recreation, and open space are looked at as part of an overall infrastructure for a community made up of various components, such as playgrounds, multi-purpose fields, passive areas, etc. The ways in which the characteristics listed above affect the amount of service provided by the components of the system are explained in the following text.

Quality – The service provided by anything, whether it is a playground, soccer field, or swimming pool is determined in part by its quality. A playground with a variety of features, such as climbers, slides, and swings provides a higher degree of service than one with nothing but an old teeter-totter and some “monkey-bars.”

Condition – The condition of a component within the park system also affects the amount of service it provides. A playground in disrepair with unsafe equipment does not offer the same service as one in good condition. Similarly, a soccer field with a smooth surface of well-maintained grass certainly offers a higher degree of service than one that is full of weeds, ruts, and other hazards.

Location – To be served by something, you need to be able to get to it. The typical park playground is of more service to people who live within easy reach of it than it is to someone living all the way across town. Therefore, service is dependent upon proximity and access.

Comfort – The service provided by a component, such as a playground, is increased by having amenities such as shade, seating, and a restroom nearby. Comfort enhances the experience of using a component.

Convenience – Convenience encourages people to use a component, which increased the amount of service that it offers. Easy access and the availability of trash receptacles, bike rack, or nearby parking are examples of conveniences that enhance the service provided by a component.

Ambience – Simple observation will prove that people are drawn to places that “feel” good. This includes a sense of safety and security, as well as pleasant surroundings, attractive views, and a sense of place. A well-designed park is preferable to poorly-designed one, and this enhances the degree of service provided by the components within it.

In this methodology, the geographic location of the component is also recorded. Capacity is still part of the LOS analysis (described below) and the quantity of each component is recorded as well.

The methodology uses comfort, convenience, and ambience as characteristics that are part of the context and setting of a component. They are not characteristics of the component itself, but when they exist in proximity to a component they enhance the value of the component.

By combining and analyzing the composite values of each component, it is possible to measure the service provided by a parks and recreation system from a variety of perspectives and for any given location. Typically this begins with a decision on “**relevant components**” for the analysis, collection of an accurate inventory of those components, analysis and then the results are presented in a series of maps and tables that make up the **GRASP**® analysis of the study area.

Making Justifiable Decisions

All of the data generated from the GRASP® evaluation is compiled into an electronic database that is then available and owned by the agency for use in a variety of ways. The database can help keep track of facilities and programs, and can be used to schedule services, maintenance, and the replacement of components. In addition to determining LOS, it can be used to project long-term capital and life-cycle costing needs. All portions of the information are in standard available software and can be produced in a variety of ways for future planning or sharing with the public.

It is important to note that the GRASP® methodology provides not only accurate LOS and facility inventory information, but also works with and integrates with other tools to help agencies make decisions. It is relatively easy to maintain, updatable, and creates easily understood graphic depictions of issues. Combined with a needs assessment, public and staff involvement, program and financial assessment, GRASP® allows an agency to defensibly make recommendations on priorities for ongoing resource allocations along with capital and operational funding.

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Appendix B – Sample Partnership Policy

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Sample

Partnership Policy and Proposal Format

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Sample Parks and Recreation Department Partnership Policy And Proposal Format

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I. Sample Parks and Recreation Department Partnership Policy

A. Purpose

This policy is designed to guide the process for XX Parks and Recreation Department in their desire to partner with private, non-profit, or other governmental entities for the development, design, construction, and operation of possibly partnered recreational facilities and/or programs that may occur on City property.

The XX Parks and Recreation Department would like to identify for-profit, non-profit, and governmental entities that are interested in proposing to partner with the City to develop recreational facilities and/or programs. A major component in exploring any potential partnership will be to identify additional collaborating partners that may help provide a synergistic working relationship in terms of resources, community contributions, knowledge, and political sensitivity. These partnerships should be mutually beneficial for all proposing partners including the City, and particularly beneficial for the citizens of the community.

This policy document is designed to:

- Provide essential background information.
- Provide parameters for gathering information regarding the needs and contributions of potential partners.
- Identify how the partnerships will benefit the Sample Parks and Recreation Department and the community.

Part Two: The “Proposed Partnership Outline Format,” provides a format that is intended to help guide Proposing Partners in creating a proposal for review by Sample Parks and Recreation Department staff.

B. Background and Assumptions

Partnerships are being used across the nation by governmental agencies in order to utilize additional resources for their community's benefit. Examples of partnerships abound, and encompass a broad spectrum of agreements and implementation. The most commonly described partnership is between a public and a private entity, but partnerships also occur between public entities and non-profit organizations and/or other governmental agencies.

Note on Privatization:

This application is specific for proposed partnering for new facilities or programs.

This information does not intend to address the issue of privatization, or transferring existing City functions to a non-City entity for improved efficiency and/or competitive cost concerns. An example of privatization would be a contract for a landscaping company to provide mowing services in a park. The City is always open to suggestions for improving services and cost savings through contractual arrangements. If you have an idea for privatization of current City functions, please call or outline your ideas in a letter for the City's consideration.

In order for partnerships to be successful, research has shown that the following elements should be in place prior to partnership procurement:

- There must be support for the concept and process of partnering from the very highest organizational level – i.e.: the Board or Trustees, a council, and/or department head.
- **The most successful agencies have high-ranking officials that believe that they owe it to their citizens to explore partnering opportunities whenever presented, those communities both solicit partners and consider partnering requests brought to them.**
- **It is very important to have a Partnership Policy in place before partner procurement begins. This allows the agency to be proactive rather than reactive when presented with a partnership opportunity. It also sets a “level playing field” for all potential partners, so that they can know and understand in advance the parameters and selection criteria for a proposed partnership.**
- A partnership policy and process should set development priorities and incorporate multiple points for go/no-go decisions.
- **The partnership creation process should be a public process, with both Partners and the Partnering Agency well aware in advance of the upcoming steps.**

C. Partnership Definition

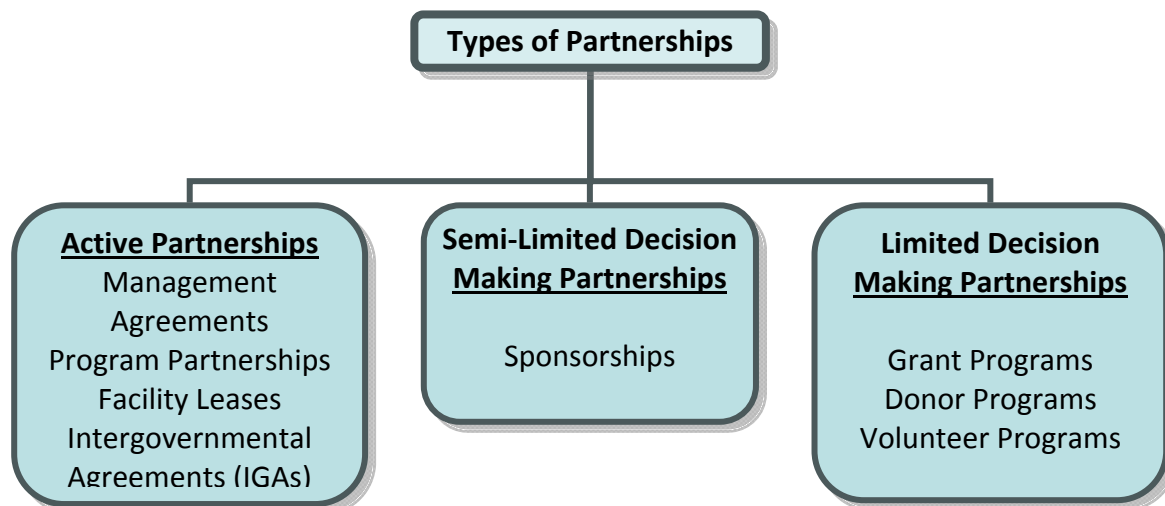
For purposes of this document and policy, a Proposed Partnership is defined as:

"An identified idea or concept involving Sample Parks and Recreation Department and for-profit, non-profit, and/or governmental entities, outlining the application of combined resources to develop facilities, programs, and/or amenities for the City and its citizens."

A partnership is a cooperative venture between two or more parties with a common goal, who combine complementary resources to establish a mutual direction or complete a mutually beneficial project. Partnerships can be facility-based or program-specific. The main goal for XX Parks and Recreation Department partnerships is enhancing public offerings to meet the mission and goals of the City. The XX Parks and Recreation Department is interested in promoting partnerships which involve cooperation among many partners, bringing resources together to accomplish goals in a synergistic manner. Proposals that incorporate such collaborative efforts will receive priority status.

Partnerships can accomplish tasks with limited resources, respond to compelling issues, encourage cooperative interaction and conflict resolution, involve outside interests, and serve as an education and outreach tool. Partnerships broaden ownership in various projects and increase public support for community recreation goals. Partners often have flexibility to obtain and invest resources/dollars on products or activities where municipal government may be limited.

Partnerships can take the form of (1) cash gifts and donor programs, (2) improved access to alternative funding, (3) property investments, (4) charitable trust funds, (5) labor, (6) materials, (7) equipment, (8) sponsorships, (9) technical skills and/or management skills, and other forms of value. The effective use of volunteers also can figure significantly into developing partnerships. Some partnerships involve active decision making, while in others, certain partners take a more passive role. The following schematic shows the types of possible partnerships discussed in this policy:



D. Possible Types of Active Partnerships

The XX Parks and Recreation Department is interested in promoting collaborative partnerships among multiple community organizations. Types of agreements for Proposed “Active” Partnerships may include leases, contracts, sponsorship agreements, marketing agreements, management agreements, joint-use agreements, inter-governmental agreements, or a combination of these. An innovative and mutually beneficial partnership that does not fit into any of the following categories may also be considered.

Proposed partnerships will be considered for facility, service, operations, and/or program development including associated needs, such as parking, paving, fencing, drainage systems, signage, outdoor restrooms, lighting, utility infrastructure, etc.

The following examples are provided only to illustrate possible types of partnerships. They are not necessarily examples that would be approved and/or implemented.

Examples of Public/Private Partnerships

- A private business seeing the need for more/different community fitness and wellness activities wants to build a facility on City land, negotiate a management contract, provide the needed programs, and make a profit.
- A private group interested in environmental conservation obtains a grant from a foundation to build an educational kiosk, providing all materials and labor, and is in need of a spot to place it.
- Several neighboring businesses see the need for a place for their employees to work out during the work day. They group together to fund initial facilities and an operating subsidy and give the facility to the City to operate for additional public users.
- A biking club wants to fund the building of a race course through a park. The races would be held one night per week, but otherwise the path would be open for public biking and in-line skating.
- A large corporate community relations office wants to provide a skatepark, but doesn't want to run it. They give a check to the City in exchange for publicizing their underwriting of the park's cost.
- A private restaurant operator sees the need for a concessions stand in a park and funds the building of one, operates it, and provides a share of revenue back to the City.
- A garden club wants land to build unique butterfly gardens. They will tend the gardens and just need a location and irrigation water.

Examples of Public/Non-Profit Partnerships

- A group of participants for a particular sport or hobby sees a need for more playing space and forms a non-profit entity to raise funds for a facility for their priority use that is open to the public during other hours.
- A non-profit baseball association needs fields for community programs and wants to obtain grants for the building of the fields. They would get priority use of the fields, which would be open for the City to schedule use during other times.
- A museum funds and constructs a new building, dedicating some space and time for community meetings and paying a portion of revenues to the City to lease its land.

Examples of Public/Public Partnerships

- Two governmental entities contribute financially to the development and construction of a recreational facility to serve residents of both entities. One entity, through an IGA, is responsible for the operation of the facility, while the other entity contributes operating subsidy through a formula based on population or some other appropriate factor.
- Two governmental public safety agencies see the need for more physical training space for their employees. They jointly build a gym adjacent to City facilities to share for their training during the day. The gyms would be open for the City to schedule for other users at night.
- A school district sees the need for a climbing wall for their athletes. The district funds the wall and subsidizes operating costs, and the City manages and maintains the wall to provide public use during non-school hours.
- A university needs meeting rooms. They fund a multi-use building on City land that can be used for City community programs at night.

E. Sponsorships

The XX Parks and Recreation Department is interested in actively procuring sponsorships for facilities and programs as one type of beneficial partnership. Please see the ***Sample Parks and Recreation Department Sponsorship Policy*** for more information.

F. Limited-Decision Making Partnerships: Donor, Volunteer, and Granting Programs

While this policy document focuses on the parameters for more active types of partnerships, the City is interested in, and will be happy to discuss, a proposal for any of these types of partnerships, and may create specific plans for such in the future.

G. Benefits of Partnerships with Sample Parks and Recreation Department

The City expects that any Proposed Partnership will have benefits for all involved parties. Some general expected benefits are:

Benefits for the City and the Community:

- Merging of resources to create a higher level of service and facility availability for community members.
- Making alternative funding sources available for public community amenities.
- Tapping into the dynamic and entrepreneurial traits of private industry.
- Delivering services and facilities more efficiently by allowing for collaborative business solutions to public organizational challenges.
- Meeting the needs of specific groups of users through the availability of land for development and community use.

Benefits for the Partners:

- Land and/or facility availability at a subsidized level for specific facility and/or program needs.
- Sharing of the risk with an established stable governmental entity.
- Becoming part of a larger network of support for management and promotion of facilities and programs.
- Availability of professional City recreation and planning experts to maximize the facilities and programs that may result.
- Availability of City staff facilitation to help streamline the planning and operational efforts.

II. The Partnering Process

The steps for creation of a partnership with the XX Parks and Recreation Department are as follows:

- A. XX Parks and Recreation Department will create a public notification process that will help inform any and all interested partners of the availability of partnerships with the City. This will be done through notification in area newspapers, listing in the brochure, or through any other notification method that is feasible.
- B. The proposing partner takes the first step to propose partnering with the City. To help in reviewing both the partnerships proposed, and the project to be developed in partnership, the City asks for a **Preliminary Proposal** according to a specific format as outlined in ***Part Two - Proposed Partnership Outline Format***.
- C. If initial review of a Preliminary Proposal yields interest and appears to be mutually beneficial based on the City Mission and Goals, and the Selection Criteria, a City staff member or appointed representative will be assigned to work with potential partners.
- D. The City representative is available to answer questions related to the creation of an initial proposal, and after initial interest has been indicated, will work with the proposing partner to create a checklist of what actions need to take place next. Each project will have distinctive planning, design, review, and support issues. The City representative will facilitate the process of determining how the partnership will address these issues. This representative can also facilitate approvals and input from any involved City departments, providing guidance for the partners as to necessary steps.
- E. An additional focus at this point will be determining whether this project is appropriate for additional collaborative partnering, and whether this project should prompt the City to seek a **Request for Proposal (RFP)** from competing/collaborating organizations.

Request for Proposal (RFP) Trigger: In order to reduce concerns of unfair private competition, if a proposed project involves partnering with a private "for-profit" entity and a dollar amount greater than \$5,000, and the City has not already undergone a public process for solicitation of that particular type of partnership, the City will request Partnership Proposals from other interested private entities for identical and/or complementary facilities, programs, or services. A selection of appropriate partners will be part of the process.

- F. For most projects, a **Formal Proposal** from the partners for their desired development project will need to be presented for the City's official development review processes and approvals. The project may require approval by the Legal, Planning, Fire and Safety, Finance, and/or other City Departments, Parks and Recreation Advisory Board, Planning Board, The Board of Trustees, and/or the City Supervisor's Office, depending on project complexity and applicable City Charter provisions, ordinances or regulations. If these reviews are necessary, provision to reimburse the City for its costs incurred in having a representative facilitate the partnered project's passage through Development Review should be included in the partnership proposal.
- G. Depending on project complexity and anticipated benefits, responsibilities for all action points are negotiable, within the framework established by law, to ensure the most efficient and mutually beneficial outcome. Some projects may require that all technical and professional expertise and staff resources come from outside the City's staff, while some projects may proceed most efficiently if the City contributes staff resources to the partnership.
- H. The partnership must cover the costs the partnership incurs, regardless of how the partnered project is staffed, and reflect those costs in its project proposal and budget. The proposal for the partnered project should also discuss how staffing and expertise will be provided, and what documents will be produced. If City staff resources are to be used by the partnership, those costs should be allocated to the partnered project and charged to it.
- I. Specific **Partnership Agreements** appropriate to the project will be drafted jointly. There is no specifically prescribed format for **Partnership Agreements**, which may take any of several forms depending on what will accomplish the desired relationships among partners. The agreements may be in the form of:
- Lease Agreements
 - Management and/or Operating Agreements
 - Maintenance Agreements
 - Intergovernmental Agreements (IGAs)
 - Or a combination of these and/or other appropriate agreements

Proposed partnership agreements might include oversight of the development of the partnership, concept plans and project master plans, environmental assessments, architectural designs, development and design review, project management, and construction documents, inspections, contracting, monitoring, etc. Provision to fund the costs and for reimbursing the City for its costs incurred in creating the partnership, facilitating the project's passage through the Development Review Processes, and completing the required documents should be considered.

- J. If all is approved, the Partnership begins. The City is committed to upholding its responsibilities to Partners from the initiation through the continuation of a partnership. Evaluation will be an integral component of all Partnerships. The agreements should outline who is responsible for evaluation and what types of measures will be used, and should detail what will occur should the evaluations reveal Partners are not meeting their Partnership obligations.

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III. The Partnership Evaluation Process

A. Mission Statements and Goals

All partnerships with Sample Parks and Recreation Department should be in accord with the City's and the Parks and Recreation Department's Mission and Goals to indicate how a proposed partnership for that Department would be preliminarily evaluated.

SAMPLE MISSION STATEMENT

The XX Parks and Recreation Department will provide a variety of parks, recreation facilities, and program experiences equitably throughout the community. Programs will be developed and maintained to the highest quality, ensuring a safe environment with exceptional service while developing a lifetime customer. Services will demonstrate a positive economic investment through partnerships with other service providers, both public and private, ensuring a high quality of life for citizens of XX.

(Sample) GOALS –

- Promote physical and mental health and fitness
- Nourish the development of children and youth
- Help to build strong communities and neighborhoods
- Promote environmental stewardship
- Provide beautiful, safe, and functional parks and facilities that improve the lives of all citizens
- Preserve cultural and historic features within the City's parks and recreation systems
- Provide a work environment for the Parks & Recreation Department staff that encourages initiative, professional development, high morale, productivity, teamwork, innovation, and excellence in management

B. Other Considerations

1. Costs for the Proposal Approval Process

For most proposed partnerships, there will be considerable staff time spent on the review and approval process once a project passes the initial review stage. This time includes discussions with Proposing Partners, exploration of synergistic partnering opportunities, possible RFP processes, facilitation of the approval process, assistance in writing and negotiating agreements, contracting, etc. There may also be costs for construction and planning documents, design work, and related needs and development review processes mandated by City ordinances.

Successful Partnerships will take these costs into account and may plan for City recovery of some or all of these costs within the proposal framework. Some of these costs could be considered as construction expenses, reimbursed through a negotiated agreement once operations begin, or covered through some other creative means.

2. Land Use and/or Site Improvements

Some proposed partnerships may include facility and/or land use. Necessary site improvements cannot be automatically assumed. Costs and responsibility for these improvements should be considered in any Proposal. Some of the general and usual needs for public facilities that may not be included as City contributions and may need to be negotiated for a project include:

- Any facilities or non-existent infrastructure construction
- Roads or street improvements
- Maintenance to specified standards
- Staffing
- Parking
- Snow removal
- Lighting
- Outdoor restrooms
- Water fountains
- Complementary uses of the site
- Utility improvements (phone, cable, storm drainage, electricity, water, gas, sewer, etc.)
- Custodial services
- Trash removal

3. Need

The nature of provision of public services determines that certain activities will have a higher need than others. Some activities serve a relatively small number of users and have a high facility cost. Others serve a large number of users and are widely available from the private sector because they are profitable. The determination of need for facilities and programs is an ongoing discussion in public provision of programs and amenities. The project will be evaluated based on how the project fulfills a public need.

4. Funding

Only when a Partnership Proposal demonstrates high unmet needs and high benefits for City citizens, will the City consider contributing resources to a project. The City recommends that Proposing Partners consider sources of potential funding. The more successful partnerships will have funding secured in advance. In most cases, Proposing Partners should consider funding and cash flow for initial capital development, staffing, and ongoing operation and maintenance.

The details of approved and pending funding sources should be clearly identified in a proposal.

For many partners, especially small private user groups, non-profit groups, and governmental agencies, cash resources may be a limiting factor in the proposal. It may be a necessity for partners to utilize alternative funding sources for resources to complete a proposed project. Obtaining alternative funding often demands creativity, ingenuity, and persistence, but many forms of funding are available.

Alternative funding can come from many sources, e.g. Sponsorships, Grants, and Donor Programs. A local librarian and/or internet searches can help with foundation and grant resources. Developing a solid leadership team for a partnering organization will help find funding sources. In-kind contributions can, in some cases, add additional funding.

All plans for using alternative funding should be clearly identified. The City has an established Sponsorship Policy, and partnered projects will be expected to adhere to the Policy. This includes the necessity of having an Approved Sponsorship Plan in place prior to procurement of sponsorships for a Partnered Project.

C. Selection Criteria

In assessing a partnership opportunity to provide facilities and services, the City will consider (as appropriate) the following criteria. The Proposed Partnership Outline Format in Part Two provides a structure to use in creating a proposal. City staff and representatives will make an evaluation by attempting to answer each of the following Guiding Questions.

- How does the project align with the City and affected Department's Mission Statement and Goals?
- How does the proposed facility fit into the current City and the affected Department's Master Plan?
- How does the facility/program meet the needs of City residents?
- How will the project generate more revenue and/or less cost per participant than the City can provide with its own staff or facilities?
- What are the alternatives that currently exist, or have been considered, to serve the users identified in this project?
- How much of the existing need is now being met within the City borders and within adjacent cities?
- What is the number and demographic profile of participants who will be served?
- How can the proposing partner assure the City of the long-term stability of the proposed partnership, both for operations and for maintenance standards?
- How will the partnered project meet the Americans with Disabilities Act (ADA) and Equal Employment Opportunity Commission (EEOC) requirements?
- How will the organization offer programs at reasonable and competitive costs for participants
- What are the overall benefits for both the City and the Proposing Partners?

D. Additional Assistance

The XX Parks and Recreation Department is aware that the partnership process does entail a great deal of background work on the part of the Proposing Partner. The following list of resources may be helpful in preparing a proposal:

- **Courses are available through local colleges and universities to help organizations develop a business plan and/or operational pro-formas.**
- The Chamber of Commerce offers a variety of courses and assistance for business owners and for those contemplating starting new ventures.
- There are consultants who specialize in facilitating these types of partnerships. For one example, contact **GreenPlay LLC** at **303-439-8369** or **info@greenplayllc.com**.
- Reference Librarians at libraries and internet searches can be very helpful in identifying possible funding sources and partners, including grants, foundations, financing, etc.
- Relevant information including the ***City of XX Comprehensive Plan***, the ***Parks and Recreation Master Plan***, site maps, and other documents are available at the _____. These documents may be copied or reviewed, but may not be taken off-site.
- The XX Parks and Recreation Department Web Site (***www.XXXX.com***) has additional information.
- **If additional help or information is needed, please call 000-000-0000.**

Part Two

Sample Proposed Partnership Outline Format

Please provide as much information as possible in the following outline form.

I. Description of Proposing Organization:

- Name of Organization
- Years in Business
- Contact Name, Mailing Address, Physical Address, Phone, Fax, Email
- Purpose of Organization
- Services Provided/Member/User/Customer Profiles
- Accomplishments
- Legal Status

II. Decision Making Authority

Who is authorized to negotiate on behalf of the organization? Who or what group (i.e. Council/Commission/Board) is the final decision maker and can authorize the funding commitment? What is the timeframe for decision making?

Summary of Proposal (100 words or less)

What is being proposed in terms of capital development, and program needs?

III. Benefits to the Partnering Organization

Why is your organization interested in partnering with the XX Parks and Recreation Department? Please individually list and discuss the benefits (monetary and non-monetary) for your organization.

IV. Benefits to the Sample Parks and Recreation Department

Please individually list and discuss the benefits (monetary and non-monetary) for the XX Parks and Recreation Department and residents of the City.

V. Details (as currently known)

The following page lists a series of *Guiding Questions* to help you address details that can help outline the benefits of a possible partnership. Please try to answer as many as possible with currently known information. Please include what your organization proposes to provide and what is requested of XX Parks and Recreation Department. Please include (as known) initial plans for your concept, operations, projected costs and revenues, staffing, and/or any scheduling or maintenance needs, etc.

Guiding Questions

Meeting the Needs of our Community:

- In your experience, how does the project align with park and recreation goals?
- How does the proposed program or facility meet a need for City residents?
- Who will be the users? What is the projected number and profile of participants who will be served?
- What alternatives currently exist to serve the users identified in this project?
- How much of the existing need is now being met? What is the availability of similar programs elsewhere in the community?
- Do the programs provide opportunities for entry-level, intermediate, and/or expert skill levels?
- How does this project incorporate environmentally sustainable practices?

The Financial Aspect:

- Can the project generate more revenue and/or less cost per participant than the City can provide with its own staff or facilities? If not, why should the City partner on this project?
- Will your organization offer programs at reasonable and competitive costs for all participants? What are the anticipated prices for participants?
- What resources are expected to come from the Parks & Recreation Department?
- Will there be a monetary benefit for the City, and if so, how and how much?

Logistics:

- How much space do you need? What type of space?
- What is critical related to location?
- What is your proposed timeline?
- What are your projected hours of operations?
- What are your initial staffing projections?
- Are there any mutually-beneficial cooperative marketing benefits?
- What types of insurance will be needed and who will be responsible for acquiring and paying premiums on the policies?
- What is your organization's experience in providing this type of facility/program?
- How will your organization meet ADA and EEOC requirements?

Agreements and Evaluation:

- How, by whom, and at what intervals should the project be evaluated?
- How can you assure the City of long-term stability of your organization?
- What types and length of agreements should be used for this project?
- What types of “exit strategies” should we include?
- What should be done if the project does not meet the conditions of the original agreements?

Appendix C – ADA Orientation for Access Audit

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ADA 2010 Standards and Access Audit

**What does it mean and how
do you do it?**

ADA Team

October 24, 2011



New or Existing

- Construction prior to 2010 should comply with 1991 standards
- Construction completed between 2010 and March, 2012 has choice between 1991 or 2010 standards
- Construction after March 2012 must comply with 2010 standards
- Alterations to existing sites, regardless of age, comply with 2010 standards



Existing sites – the “Access Audit”

- It's about opportunities to participate, not programs offered
- A representative sample (1 of 3) should be made accessible
- Congress recognizes not every existing local government facility can be made accessible
- Technically not feasible to make accessible should be documented



Existing sites – the “Access Audit”

- Pick an amenity, how many should be accessible
- Balance by region or community, type of amenity
- Balance with strategic plans, CIP, replacement schedules, other short and long term tools



“Access Audit” – locker rooms

- **803 Dressing, Fitting, and Locker Rooms**
- **803.1 General.** Dressing, fitting, and locker rooms shall comply with 803.
- **803.2 Turning Space.** Turning space complying with 304 shall be provided within the room.
- **803.3 Door Swing.** Doors shall not swing into the room unless a clear floor or ground space complying with 305.3 is provided beyond the arc of the door swing.
- **803.4 Benches.** A bench complying with 903 shall be provided within the room.
- **803.5 Coat Hooks and Shelves.** Coat hooks provided within the room shall be located within one of the reach ranges specified in 308. Shelves shall be 40 inches (1015mm) minimum and 48 inches (1220mm) maximum above the finish floor or ground.



“Access Audit” – locker rooms

Windsor Community Recreation Center-Includes gymnasium, aerobics/dance room, activity center, multi-purpose room, classrooms, conference room, gallery, restrooms/locker rooms, and patio.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
WCRC-1 Locker Rm Lockers		1)Bench depth 2)Locker horizontal reach 3)Locker ADA signage 4)Towel racks /coat hooks 5)Baby changing station horizontal reach	1)903.3, 903.5 2)308.2 reach 3)703.4 4)803.5 height 5)308.2 reach	1) 2)remove bench (locate) 3) 4)Lower racks to XX 5)Lower station to xx					
WCRC-2 Locker Rm Restrooms									
WCRC-3 Locker Rm Showers									

The solution and this part is “desk work” – not part of the actual audit. The audit only identifies the problem.

Team Setup



○ Director (keep us on track!)



○ Lawyer (standards reference)



○ Scribe (laptop)



○ Engineer (measurements)



○ Photographer (need we say more?)



Questions?

- Let's get to work!!
 - CRC (one hour)
 - Locker rooms
 - Kitchen
 - Cabinets and sinks
 - WHS pool (45 min)
 - Deck
 - Water access

Appendix D – ADA Audit

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ADA Transition Plan 2012

Corrected Three Year Plan

Priority One (1) 2012		Priority Two (2) 2013		Priority Two (3) 2014	
<u>Boardwalk Park</u>	\$16,000	<u>Boardwalk Park</u>	\$3,000	<u>Aberdour Circle Park</u>	\$1,400
<u>Chimney Park</u>	\$9,859	<u>Chimney Park</u>	\$32,650	<u>Eastman Oxbow</u>	\$18,000
		<u>Chimney Park Pool</u>	\$12,935	<u>Poudre Pooch Park</u>	\$2,200
		<u>Community Recreation Center</u>	\$2,600	<u>Windsor Museum</u>	\$2,400
		<u>Covenant Park</u>	\$3,000	<u>Windsor Lake</u>	\$9,700
		<u>Eastman Park</u>	\$25,375	<u>Windsor West Park</u>	\$28,000
		<u>Main Park</u>	\$27,300		
		<u>Town Hall</u>	\$1,000		
<i>Priority One (inc. 15% contingency)</i>	\$29,738	<u>Founders Park</u>	\$24,800	<i>Priority Two (inc. 15% contingency)</i>	\$70,955
		<u>Highlands Park</u>	\$16,650		
<i>Future Project</i>		<u>Windsor Village Park</u>	\$34,500		
<u>Chimney Park Pool Deck & BH</u>	\$120,750				
<i>includes 15% contingency</i>		<i>Priority One (inc. 15% contingency)</i>	\$211,382	ADA COMPLIANCE TOTAL	\$432,825

Aberdour Circle Park-Contains walks and 4 acres of turf, shelter 2 and 2 playgrounds

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
ACP-1 Shelter East		No accessible tables	902	Install accessible table in each shelter; total two.	2	Parks	\$1,400	2014	04-474-6444
TOTAL							\$1,400		

Boardwalk Park-Includes turf, amphitheater, TOW Museum, Boundless playground, 2 shelters, concession/restroom building, Windsor Lake, and Windsor Trail.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
BP-1 5th Street entrances		No detectable access on both north and south side trail entrance	Town of Windsor Requirement	Detectable warning strip install; cut domes into existing concrete.	1	Engineering	\$3,000	2013	04-462-6444
B -2 Boat Dock	 	Gap too large Width of pier only 58” should be 60” minimum	1003.3	Verify exact requirement to determine cost implications; consult with sales rep for ADA compliance.	1	Aquatics and Parks	\$10,000	2012	04-456-8444
BP-4 Beach		Swim Beach not accessible	206	No access currently; install concrete ramp to water edge.	1	Parks	\$6,000	2012	04-462-8444
BP-5 Restrooms		Women’s Soap Dispenser at 58” Men’s Soap Dispenser at 58”	308.2.2	Re-mount.	1	Facilities	\$0	2013	
BP-6 Door Swing		Door swinging weight 5 lbs. max.	404.2.9	Professional Lock and Key vendor to adjust; cost undetermined	1	Facilities		2013	04-462-6444
TOTAL							\$19,000		

Boardwalk Park-Includes TOW Museum

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
BP-6 Museum-Shanti		Threshold over ½”	35.151 (b)(ii)	Exempt, Will provide alternative access via signage or multimedia (Cell Phone Tour)		Art & Heritage			Historic structure: Thresholds to be addressed in 2015 Maintenance and Gen. Property
BP-7 German Four Square	 	Door Threshold	303.3	Replace Threshold. ADA compliance will be upheld, contingent that no major alteration to the historic structure is required.	2	Art & Heritage	\$200	2014	Historic structure: Thresholds to be addressed in 2015 Maintenance and Gen. Property
BP-8 Summer Kitchen	 	No access	402	Technically not feasible; install crusher fine path between front door of German 4-Square and Summer Kitchen.	2	Art & Heritage	\$2,000	2014	Facility currently not open to the public. Access and/or alternatives will be addressed in CIP Landscapping Master Plan. 2016', 17', & 18'.
BP-9 School House	 	Threshold	303.3	Replace Threshold. ADA compliance will be upheld, contingent that no major alteration to the historic structure is required.	2	Art & Heritage	\$200	2014	Historic structure: Thresholds to be addressed in 2015 Maintenance and Gen. Property

Boardwalk Park-Includes TOW Museum

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
BP-10 Depot and Caboose		Threshold over ½” Doors throughout museum Restroom door swings inward and does not meet 26” from toilet requirement Caboose not accessible	35.151 (b)(ii)	Bathroom door will be rehung to open outward. Museum entrance and doorways exempt. Will provide alternate access via signage or multimedia (Cell Phone Tour)	2	Art & Heritage	\$0	2014	04-456-6444 ADA Door will be addressed in Decemeber 2014. Historic structure: Thresholds to be addressed in 2015 Maintenance and Gen. Property
BP-11 Fire Museum Restrooms				Compliant					
TOTAL							\$ 2,400		

Chimney Park-Includes 2 baseball/softball fields, concessions, restrooms, walking paths, playground and shelter.

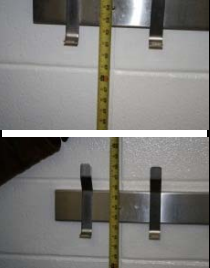
Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
CP-1		Ramp not compliant	406.1	C,G,S Replacement ; four entrance ramps with aprons and one ADA ramp in parking lot	1	Engineering	\$15,750	2013	04-463-8444
CP-2		Sidewalks have large cracks all along path *alternative route available	303.2	C,G,S Replacement; 100 ft sidewlak and 10 ft C, G @ maintenace entrance	1	Engineering	\$3,300	2013	04-463-6444
CP-3		Threshold too steep at Main Entrance, Street entrance	405.2	Install new compliant ramp to include a switchback style ramp with rails & curb	1	Facilities	\$12,000	2013	04-463-8444
CP-4		Chestnut access too steep and threshold inaccessible	406.1	C,G,S Replacement; mid-block ADA ramp	1	Engineering	\$1,600	2013	04-463-6444
CP-5		No access in front of bleachers	403.5.1	Move bleachers, fasten at appropriate location to allow access	1	Parks	\$0	2013	
CP-6		Playground transition zones exceed acceptable slopes	403.3	Remove and replace poured in place material so that it complies with appropriate grades	1	Parks	\$7,859	2012	04-463-8444
CP-7		Needs one more ground type play component	240.2.1.2	Install new stand alone panel	1	Parks	\$2,000	2012	04-463-6444
CP-8		Score box entrance too steep on field #2 and no landing on field #3 score box	405.2, 405.7	Currently 1 of 3 fields is compliant.	1	N/A	\$0	2013	

Chimney Park-Includes 2 baseball/softball fields, concessions, restrooms, walking paths, playground and shelter.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
CP-9		No accessible picnic tables	902.2	Provide table	1	Park	\$1,400	2013	04-463-6444
CP-10		Men’s and Women’s Restroom paper towel dispensers too high- 52”	308.2.2	Re-mount	1	Facilities	\$0	2013	completed by June 2012
CP-11		Water fountain too tall 38” to spout	602.4	Re-mount	1	Facilities	\$500	2013	04-463-6444
CP-12		No access to batting cages	1008.2, 302.1	Install accessible route (crusher fines path) to one set	1	Parks	\$800	2013	04-463-6444
CP-13		Door swinging weight 5 lbs. max.	404.2.9	Professional Lock and Key vendor to adjust; cost undetermined	1	Facilities	cost \$0	2013	04-463-6444 completed 2012
TOTAL							\$ 45,209		

C,G,S = Curb, Gutter, Sidewalk

Chimney Park Swimming Pool-Includes 2 shelters, outdoor pool, water slide, and concessions.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
CPP-1 Hook Height		Hooks too high in both locker rooms	603.4	Re-mount hooks	1	Facilities	\$0	2013	completed May 2013
CPP-2 bench width		Bench not deep enough and no back in both locker rooms	903.43	Re-locate one bench with correct back and width in each locker room.	1	Rec Staff	\$1,098	2013	04-452-6444 completed May 2013 - purchased new benches
CPP-3 ADA stall hook too high		Hooks too high in the ADA stall in the both locker rooms	603.4	Re-mount hooks	1	Facilities	\$0	2013	04-452-6444 completed May 2013
CPP-4		Soap dispenser too high in the showers (both locker rooms)	606.3	Re-mount hooks	1	Facilities	\$0	2013	completed May 2013
CPP-5		Hooks too high by showers (both locker rooms)	604.8.3	Re-mount hooks	1	Facilities	\$0	2013	completed May 2013

Chimney Park Swimming Pool-Includes 2 shelters, outdoor pool, water slide, and concessions.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
CPP-6		No grab bar or seat in the shower for both the men's and women's restroom	608.3	Install 2 grab bars	1	Facilities	\$200	2013	04-452-6444 Completed December 2014-\$180.00
CPP-7		Ramp landing not compliant in pool	1009.3	Pool project; provide alternate entrance	1		\$0	2013	Install 2 lifts, see CPP 7 completed May 2013
CPP-8		2 forms of access for the pool - 2 lifts at \$5000 each	242.2;1009.2	300 linear feet of deck requires 2 access points. Primary = lift; second = lift	1	Rec Staff	\$9,290	2013	completed May 2013 - installed two lifts
CPP-9		Drinking fountain spout is not 15" from back wall.	602.5	Install compliant fountain	1	Facilities	\$2,347	2013	04-452-6444
		Door swinging weight 5 lbs. max.	404.2.9	Greeley Lock and Key to adjust; cost undetermined	1	Facilities		2013	04-452-6444
TOTAL							\$ 12,935		

Chimney Park Swimming Pool-Includes 2 shelters, outdoor pool, water slide, and concessions.

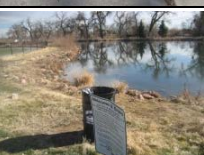
Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
CPP-10 Toilet bowl placement		Bowl not 17 – 19 inches from the side wall in the both locker rooms	603.2.2	Compliant with 1990 ADA , no action required until remodel of building and bringing pool up to current Health Dept Standards	F	Facilities	\$20,000	Future	04-452-8444 Technically not feasible until remodel
CPP-11 Grab bar missing		No back grab bar in the ADA stall in both locker rooms	604.5	Compliant with 1990 ADA, no action required until remodel of building	F	Facilities		Future	04-452-8444 Technically not feasible until remodel
CPP-12 Size of ADA stall		ADA stall not the correct dimensions in both locker rooms	604.3	Compliant with 1990 ADA, no action required until remodel of building	F	Facilities		Future	04-452-8444 Technically not feasible until remodel
CPP-13		Ramp for kiddie pool – not possible at 12-1 slope	242.2; 1009.2	Technically not feasible	F	Facilities	\$0	Future	Technically not feasible until remodel
CPP-14		Pool deck replacement	303.2	Due to uneven surfacing and degrading Dri-deck surfacing; entire deck needs to be replaced	F	Facilities	\$85,000	Future	04-452-8444 Technically not feasible until remodel
TOTAL							\$ 105,000		

Covenant Park-Includes tot-lot playground, 2 shelters, volleyball court, basketball court, and horseshoe pit.

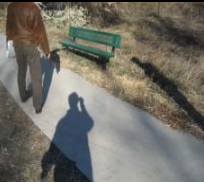
Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
CoP-1		Southwood St. entrances thresholds are too steep	406.1	C,G,S; technically not feasible due to drainage issues; alternate access provided		Engineering			
CoP-2		No access to horseshoe pits	1008.2, 302.1	Install accessible route (crusher fines path)	1	Parks	\$1,000	2013	04-443-6444
CoP-3		Benches (4) are not accessible	903.2, 305.3	Accessible picnic tables are considered an acceptable alternate		Parks			
CoP-4		Transition platform is obstructed by hand rail on West Play Area	1008.3.1.1	Move hand rail to east side of platform	1	Parks	\$1,000	2013	04-443-6444
CoP-5		Mulch is too low creating a unaccessible transition point to the platform	1008.3.1.3	Install additional mulch, maintain per maintenance plan to appropriate levels.	1	Parks	\$1,000	2013	04-443-6444
							\$ 3,000		

C,G,S = Curb, Gutter, Sidewalk

Eastman Park-Includes soccer fields, pond, skate park, shelter, concessions, restrooms, playground and archery range.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
EP-1		Men’s urinal too high- 17.5”	605.2	Lower Urinal	1	Facilities	\$675	2013	04-470-6444 Completed 8-2014
EP-2		Currently no Accessible Tables per standards	902.2	Add 4 compliant tables	1	Parks	\$2,800	2013	04-470-6444
EP-3		No access to playground	206.2.17.2, 1008.2	Install Ramps into areas, surface currently considered compliant EWF	1	Parks	\$2,500	2013	04-470-6444
EP-4		Grade transition to steep of of Accessible parking spots	303.2	Grind joint down to acceptable transition	1	Parks	\$1,000	2013	04-470-6444
EP-5		Crack too large	302..3	Caulk joint	1	Parks	\$200	2013	04-470-6444
EP-6		No access to pond	1008.2, 302.1	Windsor Lake is the accepted alternative, install signs and website for depicting ada compliant sites.					
EP-7		Picnic table access	902.2	Acceptable alternative					

Eastman Park-Includes soccer fields, pond, skate park, shelter, concessions, restrooms, playground and archery range.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
EP-8		Bench not acceptable west end under tree by bridge	903.2, 903.23, 903.4, 903.5	Replace with compliant bench	1	Parks	\$1,200	2013	04-470-6444
EP-9		Access to playground non existent	206.2.17.2, 1008.2	Install accessible route	1	Parks	\$2,500	2013	04-470-6444
EP-10		East and West ADA ramps have no detectable access	Install per Town of Windsor Standard	C,G,S; two mid-block ADA ramps and one cut in detectable device at trash enclosure	1	Engineering	\$5,500	2013	04-470-6444
EP-11		No accessible swing	206.2.17.2, 1008.2	Install appropriate swing, ensure surfacing is maintained at the appropriate height.	1	Parks	\$3,000	2013	04-470-6444
EP-12		No field spectator or player access	302.1	Designated spectator seating not provided, no access required. Player access via alternative product.	1	Parks and Recreation	\$4,000	2013	04-470-6444 Add portable surfaces that meet current guidelines.
EP-13		No Domes	Town of Windsor Standard	C,G,S; one mid-block ADA ramp	1	Engineering	\$2,000	2013	04-470-6444

Eastman Park-Includes soccer fields, pond, skate park, shelter, concessions, restrooms, playground and archery range.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
EP-14		Door swinging weight 5 lbs. max.	404.2.9	Professional Lock and Key vendor to adjust; cost undetermined	1	Facilities		2013	04-470-6444
TOTAL							\$ 25,375		

C,G,S= Curb, Gutter, Sidewalk

Eastman Park Oxbow-12 hole disc golf course.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
EPO-1		No Access to any holes.	302.1	Install accessible route (crusher fines path)	2	Parks	\$9,000	2014	04-470-8444
EPO-2		ADA parking not provided	208.2	Install concrete pad connecting to trail	2	Parks	\$9,000	2014	04-470-8444
TOTAL							\$18,000		

Founders Green Park-Includes two picnic shelters, drinking fountain, playground and basketball court.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
FG-1		No detectable warning on curb ramps	This is a Town Standard and not identified in the ADA Guidelines	C,G,S: three cut in detectable devices, replace one corner ramp	2	Engineering	\$7,500	2013	04-444-8444
FG-2		Non compliant access to picnic tables in shelters	902.2	Add ADA tables; total two.	2	Parks	\$1,400	2013	04-444-6444
FG-3		Trail concrete damage, non compliant grade change	303.3	Replace	2	Parks	\$1,200	2013	04-444-6444
FG-4		Trail concrete damage, non compliant grade change	303.3	Replace	2	Parks	\$1,200	2013	04-444-6444
FG-5		Play ground surfacing damage	303.2	Repair	2	Parks	\$11,000	2013	04-444-8444
FG-6		Access to swing set area non compliant	206.2.17.2, 1008.2	Install ramps; modifications to create access require 100% access	2	Parks	\$2,500	2013	04-444-6444
TOTAL							\$24,800		

C,G,S = Curb, Gutter, Sidewalk

Main Park-Includes 3 shelters, 1 gazebo, grills, restroom, horseshoe pits, 2 in-line hockey rinks, 2 basketball courts, 2 playgrounds, and sand volleyball court.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
MP-1 West Shelter		Ramp exceed acceptable slopes	406	CGS; east side on 3rd St mid-block ramp and on Elm, new mid-block ramp, north side culdesac.	1	Engineering	\$1,900	2013	04-461-6444
MP-2 West grill access		No accessible grill	302.1, 403.5.1	Relocate grill to be along accessible route; or remove totally	1	Parks	\$900	2013	04-461-6444
MP-3 West Shelter picnic tables		Tables block accessible route (36")	403.5.1	Install 2 accessible tables, anchor tables in place to ensure access width is maintained	1	Parks	\$1,400	2013	04-461-6444
MP-4 West Playground transition from concrete to PIP		Exceeds grade differentiation and surfacing is failing, has large holes.	303.2	Install new surfacing.	1	Parks	\$4,500	2013	04-461-6444
MP-6 Gazebo shelter		Not accessible	308.2.2	Historic Structure; technically not feasible					
MP-7 Horseshoe pits		Not accessible	308.2.2	Install path to pits	1	Parks	\$8,000	2013	04-461-8444

Main Park-Includes 3 shelters, 1 gazebo, grills, restroom, horseshoe pits, 2 in-line hockey rinks, 2 basketball courts, 2 playgrounds, and sand volleyball court.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
MP-8 Access		No accessible route from main NS route to restrooms		Divert through street until improved; six foot trail connection.	1	Parks	\$2,000	2013	04-461-6444
MP-9 Restrooms		Door opening force? Push flush	309	Check door opening force when equipment is available and flush mechanism	1	Facilities	\$200	2013	04-461-6444
MP-10 Restrooms		Urinals too high	605.2	Replace urinals with units that meet current code.	1	Facilities	\$2,000	2013	04-461-6444
MP-11 Restrooms		Hook inside ADA toilet	308.2.2 309	Install hook at appropriate height. Lower urinal	1	Facilities	\$1,000	2013	04-461-6444
MP-12 East shelter Locust Street Access		Trail access south off Locust to shelters too steep	406	CGS; mid-block access Install accessible tables, caulk joints as appropriate	1	Engineering Parks	\$1,600	2013	04-461-6444
MP-13 East Shelters		No accessible picnic tables	902.2	Install accessible table in each shelter; total 4.	1	Parks	\$1,600	2013	04-461-6444
MP-14 East Shelters		Gaps and cracks in concrete	302.3	Caulk joints as appropriate	1	Parks	\$100	2013	04-461-6444

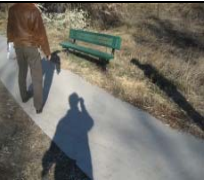
Main Park-Includes 3 shelters, 1 gazebo, grills, restroom, horseshoe pits, 2 in-line hockey rinks, 2 basketball courts, 2 playgrounds, and sand volleyball court.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
MP-16 In line hockey rinks		Court not accessible	403.1	Install operable door meeting standards.	1	Parks	\$500	2013	04-461-6444
MP-17 Hockey Rinks		Grades exceed ramp tolerances	406	Slope too steep; mid-block ramp	1	Engineering	\$1,600	2013	04-461-6444
MP-18 Door swing		Door swinging weight 5 lbs. max.	404.2.9	Professional Lock and Key vendor to adjust; cost undetermined	1	Facilities		2013	04-461-6444
TOTAL							\$27,300		

Main Park-Includes 3 shelters, 1 gazebo, grills, restroom, horseshoe pits, 2 in-line hockey rinks, 2 basketball courts, 2 playgrounds, and sand volleyball court.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
MP-5 West Playground		Playground is not currently compliant with standards. See separate inspection form for Playground.	302.1, 403.5.1	Install fully compliant play structure when due for upgrade.	F	Parks	\$250,000	future as scheduled replacement	04-461-8444
TOTAL							\$250,000		

Poudre Pooch Park

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
PPP-1		The entry way is a loose aggregate which needs to be replaced with an approved non skid material	302.1	Install accessible route (crusher fines path)	2	Parks	\$1,000	2014	04-466-6444
PPP-2		Bench on access path	903.2, 90323, 903.4, 903.5	Replace with compliant bench	2	Parks	\$1,200	2014	04-466-6444
TOTAL							\$2,200		

Windsor Town Hall-Includes customer service, restrooms, meeting rooms and Town Board Chambers.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
TH-1 Reception counter dimensions		Counter width – if no toe or knee clearance, needs to be 36” wide minimum.	904.4	Install new piece of granite to make compliant to provide knee and toe clearance	1	Facilities	\$1,000	2013	04-457-6444
TH-2 1st floor restrooms (men)		ADA stall door swings into compartment area	604.8.2.2	Change the swing of the doors to swing out of the compartment instead of in	1	Facilities	\$0	2013	completed January 2013
TH-3 handrail 3rd floor		Handrail less than 1.5” from the wall	505.5	Re-mount handrail	1	Facilities	\$0	2013	Completed November 2012
TH-4 Door swing		Door swinging weight 5 lbs. max.	404.2.9	Professional Lock and Key vendor to adjust; cost undetermined	1	Facilities		2013	04-457-6444
TOTAL							\$ 1,000		

Windsor Community Recreation Center

-Includes gymnasium, aerobics/dance room, activity center, multi-purpose room, classrooms, conference room, gallery, restrooms/locker rooms, and patio.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
CRC – 1 Locker Rm lockers		ADA Accessible Bench not the right depth- 29" Max depth 24" Reach ranges Benches in front of lockers make the front/side reach non-compliant Lockers not accessible ADA Lockers will need appropriate signage	903.3 903.4 308.2 308.3	Trim bench, remove section, install ADA compliant lockers	 1	Facilities	 \$2,000	 2013	In Progress..Waiting for architect drawings
CRC – 2 Locker Rm Restrooms		Restroom door does not open out	604.8.1.2	Re-mount to open out	 1	Facilities	 \$0	 2013	completed April 2013
CRC – 3 Locker Rm Showers		Bench is too short- 19" Hand driers are 49" tall and should be a max of 48"	903.4 608.2 308.2.1	Install compliant bench, lower hand drier	 1	Facilities	 \$200	 2013	In Progress..Waiting for architect drawings
CRC -4 Front Restrooms		Handicap stall opens in instead of out.	604.8.1.2	Reverse door latch	 1	Facilities	 \$0	 2013	Completed April 2013
CRC - 5 Front Restrooms		Door must be self closing.	604.8.1.2	Repair hinge	 1	Facilities	 \$100	 2013	completed 2013
CRC – 6 Front Desk		Public phone must be equipped with TTY		Will remove public phone	 1	CRC Staff	 \$0	 2013	Phone removed

Windsor Community Recreation Center

-Includes gymnasium, aerobics/dance room, activity center, multi-purpose room, classrooms, conference room, gallery, restrooms/locker rooms, and patio.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
CRC – 7 2nd Floor Restrooms Men & Women		Hook is too high	603.4	Re-mount hook to appropriate height or install new	1	Facilities	\$0	2013	completed 2013
CRC –8 2nd Floor Restrooms Men & Women		Paper towel dispensers mounted too high	603.4	Re-mount dispensers	1	Facilities	\$0	2013	completed 2013
CRC – 9 Game Area		Non accessible games		Trade one game out for an accessible game	1	CRC Staff	\$0	2013	completed 2013 - Removed foosball table
CRC – 10 Climbing Wall		Climbing Wall transition to mat		A bench can be used as a transfer station to enter on to the mat area. Provide appropriate portable bench	1	CRC Staff	\$300	13-Dec	completed 2013 - ordered and put out bench
CRC – 11 All doors		Door swinging weight 5 lbs. max.	404.2.9	Professional Lock and Key vendor to adjust; cost undetermined (2012 in operations and to get cost estimate for other facilities)	1	Facilities and CRC Staff		2012	05-490-6444 all doors in compliance and identified with a compliant sticker
TOTAL							\$ 2,600		

Windsor Highlands Park-Includes 2 shelters, tot-lot playground, basketball and volleyball courts, trails, and multipurpose field.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
WHP-1		Ramp not complaint	406.3	Replace as part of CG&S	2	Engineering	\$1,600	2013	04-472-6444
WHP-2		Portable toilet not ADA accessible	404.2.4.1	Order accessible unit	2	Parks	\$0	2013	
WHP-3		Bench not compliant	903.2, 903.23, 903.4, 903.5	Picnic tables are an acceptable alternative		Parks			
WHP-4		Ramp not compliant	206.4	Replace as part of CG&S	2	Engineering	\$2,750	2013	04-472-6444
WHP-5		Sidewalk at storm inlet settled, grade change not compliant	303.2	Replace as part of CG&S	2	Engineering	\$1,600	2013	04-472-6444
WHP-6		No ramp at mid street crosswalk along Highland Meadows Parkway	206.4	C,G,S	2	Engineering	\$1,600	2013	04-472-6444
WHP-7		No detectable warning at Schooner and Highland Meadows Parkway	Install per Town of Windsor Standard	Cut in audible warning domes	2	Engineering	\$3,000	2013	04-472-6444

Windsor Highlands Park-Includes 2 shelters, tot-lot playground, basketball and volleyball courts, trails, and multipurpose field.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
WHP-8		No ADA access to castle	206.2.17.2, 1008.2	Alternatives available		Parks	\$0		Technically not feasible; alternative play components
WHP-9		Both playgrounds do not have an accessible route into the play area	206.2.17.2, 1008.2	Install accessible route (ramp) as well as additional mulch.	2	Parks	\$5,000	2013	04-472-6444
WHP-10		Transfer step exceeds height by 1/4 inch.	1008.3.1.1 and .2	Modify in field if possible	2	Parks	\$0	2013	
WHP-11		Crack in middle of walk greater than the ½" separation approved	302.3	Caulk	2	Parks	\$300	2013	04-472-6444
WHP-12		Gazebo Shelter, no accessible tables and no access to grill	305.5	Install accessible route (crusher fines path)	2	Parks	\$500	2013	04-472-6444
WHP-13		Square shelter has ADA tables, not enough room to access them	305.5	Move tables to accommodate accessibility requirements	2	Parks	\$0	2013	

Windsor Highlands Park-Includes 2 shelters, tot-lot playground, basketball and volleyball courts, trails, and multipurpose field.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
WHP-14		Square shelter has no access to the BBQ Grill	302.1	Install accessible route (crusher fines path)	2	Parks	\$300	2013	04-472-6444
TOTAL							\$ 16,650		

Windsor Lake-Includes swim beach, 3 fishing piers, and trail.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
WL-1		Bench (Yauk's) not accessible on pad, bench not compliant	402, 903.2, 903.3, 903.4, 903.5	Replace with accessible bench, move trash can, ensure adequate room for access to bench.	2	Parks	\$1,200	2014	04-441-6444
WL-2		2nd Street Access surface non compliant slope excessive	302.1, 405.2	Regrade, install signage to designate a maintenance access and provide signage to note accessible locations. This is primarily a maintenance access.	2	Parks	\$100	2014	04-441-6444
WL-3		Chimney Park Drive access slope on west side too steep, east ramp is a compliant slope	405.2	East ramp is compliant, no action necessary on west.			NA		
WL-4		Front of 225 Chimney Park Drive grade separation of concrete joint exceeds compliance	303.2	Possibly grind, or remove and replace - between \$400-\$1000	2	Parks	\$1,000	2014	04-441-6444

Windsor Lake-Includes swim beach, 3 fishing piers, and trail.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
WL-5		Memorial bench near future church site does not allow for access on the pad	305.5	Move bench to edge to allow room for chair access	2	Parks	\$150	2014	04-441-6444
WL-6		Memorial bench west of pump station adjacent to trail does not allow for access on the pad adjacent to the bench	305.5	Move bench to edge to allow room for chair access	2	Parks	\$150	2014	04-441-6444
WL-7		North side portable restroom structure, RR not ADA accessible, surface to RR, non compliant	302.1, 404.2.3	Install accessible route (crusher fine path), order accessible toilet unit	2	Parks	\$1,000	2014	04-441-6444
WL-8		Dog Park, no path into dog park, bench and pad also non compliant	302.1		2		\$3,000	2014	04-441-6444
WL-9		West parking lot, no detectable domes on entry to the path, no marked accessible parking in lot.	Town Standard	Designate ADA parking is appropriate space per standards for parallel parking.	2	Parks	\$1,600	2014	04-441-6444
WL-10		Cedar and 6 th Street Memorial Bench, no access adjacent to the bench.	305.5	Move bench to edge	2	Parks	\$150	2014	04-441-6444

Windsor Lake-Includes swim beach, 3 fishing piers, and trail.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
WL-11		6 th and Cedar, grade change at walk to parking exceeds allowed tolerances	303.2	Grind to allowable transition	2	Parks	\$400	2014	04-441-6444
WL-12		Library Bench, no side access, bench seat depth insufficient	903.3, 903.4, 903.5	Install compliant bench; or consider alternatives nearby	2	Parks	\$950	2014	04-441-6444
TOTAL							\$ 9,700		

Windsor Village Park-Includes basketball court, grills, sand volleyball court, playground and shelter.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
WV-1		No access to bench; bench not compliant	302.1,903.2, 903.3, 903.4, 903.5	Remove bench, provide access to other accessible benches.	2	Parks	\$4,000	2013	04-465-6444
WV-2		No access to shelter	302.1	Install accessible route	2	Parks	\$8,000	2013	04-465-8444 \$1905
WV-3		No access to basketball court	302.1	Install accessible route	2	Parks	\$12,000	2013	04-465-8444
WV-4		No access to playground area	206.2.17.2, 1008.2	Install accessible ramp	2	Parks	\$2,500	2013	04-465-6444
WV-5		No accessible tables	902.2	Order and install tables, two tables	2	Parks	\$2,500	2013	04-465-6444
WV-6		No ramp on north or south entrance to park	206.2.1	C,G&S	2	Eng.	\$5,500	2013	04-465-6444
TOTAL							\$34,500		

C,G & S - Curb, Gutter and Sidewalk

Windsor West Park-Includes basketball courts, playground, 2 shelters, and multi-purpose field.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
WW-1		Entrance slope too steep	303.3	Replace	2	Parks	\$4,800	2014	04-460-6444
WW-2		Park entrance threshold greater than ½"	303.2	Remove and replace	2	Parks	\$4,000	2014	04-460-6444
WW-3		No picnic table access	302.1	Provide accessible bench as alternative seating at playground; accessible tables available in shelters	2	Parks	\$4,000	2014	04-460-6444
WW-4		No access to shelter #1	302.1	Install accessible route	2	Parks	\$8,200	2014	04-460-8444
WW-5		Transfer points exceed slopes due to low mulch levels	302.1& 1008.4	Install additional mulch, ensure mulch is maintained at appropriate levels per maintenance plan. Lower steering wheel component to meet requirements.	2	Parks	\$2,000	2014	04-460-6444
WW-6		No ADA compliant swing seat in place	240.2.1.2	Install compliant swing seat	2	Parks	\$3,000	2014	04-460-6444
WW-7		No access to shelter #2	302.1	Install accessible route	2	Parks	\$2,000	2014	04-460-6444
TOTAL							\$28,000		

Diamond Valley Community Park-Includes 3 softball fields.

Item #	Photo	ADA Issue	ADA Reference	Solution	Priority	Responsible Party	Projected Cost	Projected Date	Action taken
DV-1		No accessible route to batting cages	302.1	Install accessible route (crusher fines path)		Parks	\$8,000	2012	Add to contract
DV-2		No accessible route to pitcher warmup areas	302.1	Install accessible route (crusher fines path)		Parks	\$1,000	2012	Add to contract
DV-3		Add 2 more ADA Parking Spots assuming lot currently holds approximatley 80 cars	208.2	Install concrete pad and signage		Parks	\$6,000	2012	Add to contract
DV-4		Door swinging weight 5 lbs. max.	404.2.9	Professional Lock and Key vendor to adjust; cost undetermined		Parks		2012	Add to contract
TOTAL							\$ 15,000		

Appendix E – Community Grant Information

COMMUNITY GRANT PROGRAM DEPARTMENT OF RECREATION AND PARKS

- Grants will not exceed \$1,000 and will be awarded on a matching basis of 50% Department funding and 50% applicant contribution.
- Applications must be postmarked no later than Oct. 31, XXXX.
- Awards will be made by December 15, XXXX. Upon receipt of the acknowledgement and of a completed W-9 (if the Office of Finance does not currently have one on file), from the recipient organization, one-half of the funding will be presented. The remaining funds will be paid as soon as the project is completed and inspected by this Department.
- All applications must have the organization's Federal Tax ID number (or an officer's social security number) in order to be considered for a grant. A completed W-9 must also be returned with the acceptance letter by February 28, XXXX to Recreation & Parks in order to guarantee availability of funding. Any organization from which we have not received completed paperwork by February 28, XXXX will be disqualified but may reapply for funding in the next year's grant cycle.
- Grants will be limited to outdoor recreational facilities. Examples qualifying projects include walking trails, playground equipment, and safety fall zone areas, piers, beaches, basketball or tennis courts, picnic shelters and athletic fields.
- Projects are limited to permanent improvements of facilities. Grants will not be awarded for expendable items such as uniforms or equipment. Supplies and equipment necessary for completion of the project are eligible for funding.
- There will be no changes to the scope of work for the project once the grant has been awarded.
- Grants are available for both community and publicly owned facilities. The facility must comply with the appropriate Federal and State statutes relating to nondiscrimination. New playground equipment and fall areas must be compliant with the Americans With Disabilities (ADA) Accessibility Guidelines for Playgrounds and the U.S. Consumer Product Safety Commission Handbook for Public Playground Safety.
- The applicant will be responsible for obtaining all necessary county and other regulatory permits and approvals for the project. Approvals and permits are required prior to payment of the first half of the grant. Any proposed improvements on property of the Department of Recreation and Parks must have the prior written approval of the Director. **All projects must be completed by June 30, XXXX.

- Extensions will not be considered due to timing of financial reporting deadlines. Any project not completed by this date may forfeit the second half of the grant and may be ineligible to apply for future community grants until the project is completed.
- Written notification to the Department of Recreation and Parks of project completion is required so that the required inspections may be made prior to issuing the final check.
- Vouchers or gift letters will be required to document all purchases and donations, and must accompany the notification of project completion and request for final payment.
- Volunteer man-hours will qualify as an eligible match at the rate of \$8.00 per hour. A log of project-related man-hours must accompany the notification of project completion and request for final payment if the hours are to be considered as a match for county funds.
- Due to limited funding availability, preference will be given to those communities and organizations that have not been grant recipients within the past two years.



COMMUNITY GRANTS OFFERED BY THE DEPARTMENT OF RECREATION AND PARKS

MATCHING GRANTS of up to \$XXX
X are offered to Community
Associations, Recreation Councils and
similar organizations

What it can be used for: Construction or
rehabilitation of community recreational facilities.

Examples of qualifying projects: walking trails,
playground equipment and safety fall zone areas,
piers, beaches, basketball or tennis courts, picnic
shelters and athletic fields.

The FY XXXX Application Deadline is October
31, XXXX, with awards to be announced by
December 16

*All projects must be completed by June 30, XXXX.

If interested in obtaining an Application and further information, please
contact:



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Appendix F – Trail Planning and Design Guidelines



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MN DNR's New Trail Planning, Design, and Development Guidelines

Recreational Value and Sustainability through
Sound Planning and Design Practices

Introduction

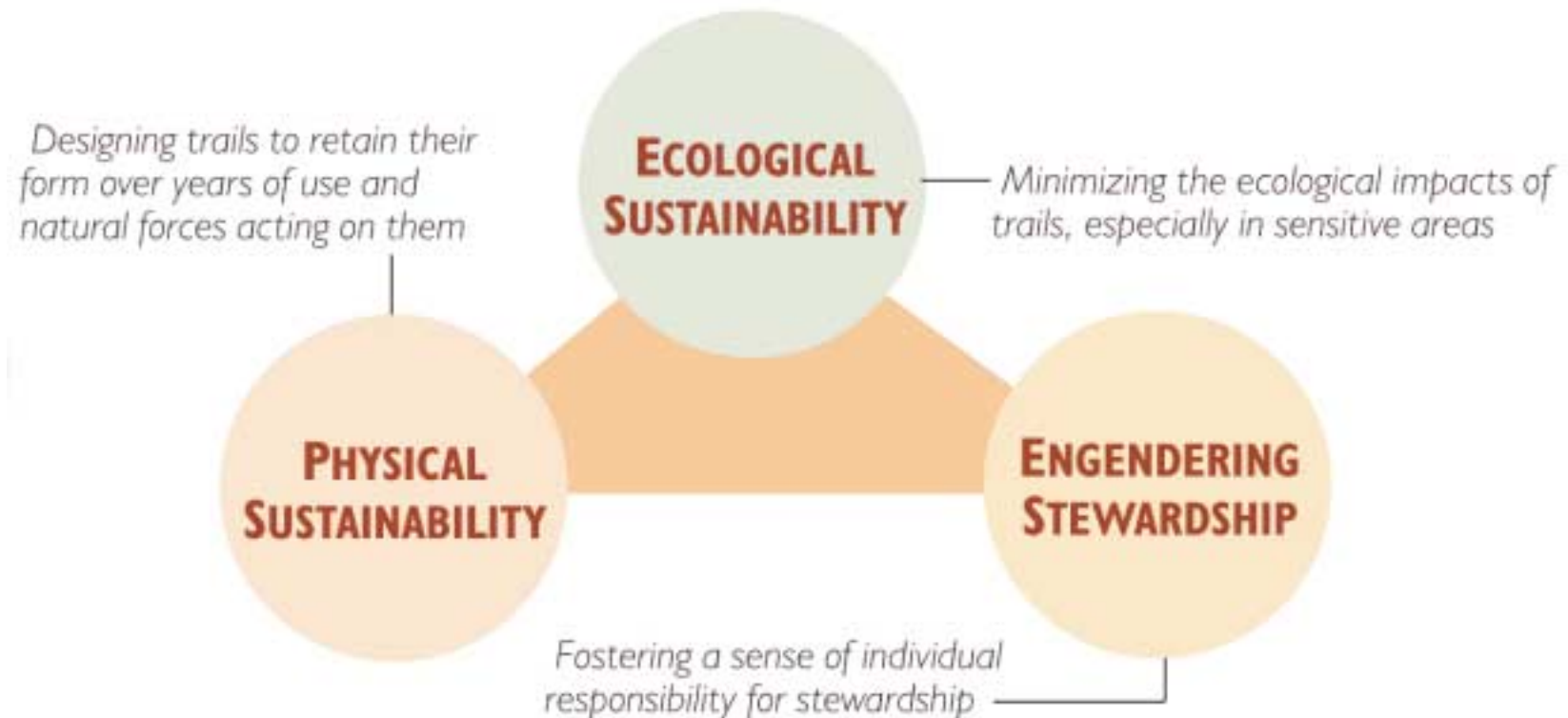
- Presenter: Jeff Schoenbauer, Brauer & Associates, Ltd.
Principle Author and project manager
- Provide a snapshot of new *MN DNR's Trail Manual*
 - Importance of quality
 - Importance of sustainability
- **Status: *Publication is now available!***

Overview of Trails Manual Goals

- Provide a consistent set of guidelines and common language for trails
- Fill gaps in best practices and techniques
- Emphasize proper trail planning and design as a means to ensure sustainability
- **Seven sections** –
 1. Planning,
 2. Design Principles
 3. Ecological Sustainability
 4. Trail Classifications
 5. Shared Use Paved Trails
 6. Sustainable Natural Trail
 7. Winter-Use Trails

Key Factors in Developing Sustainable Trails

Three key factors in trail sustainability:



Underpinnings of Sustainability

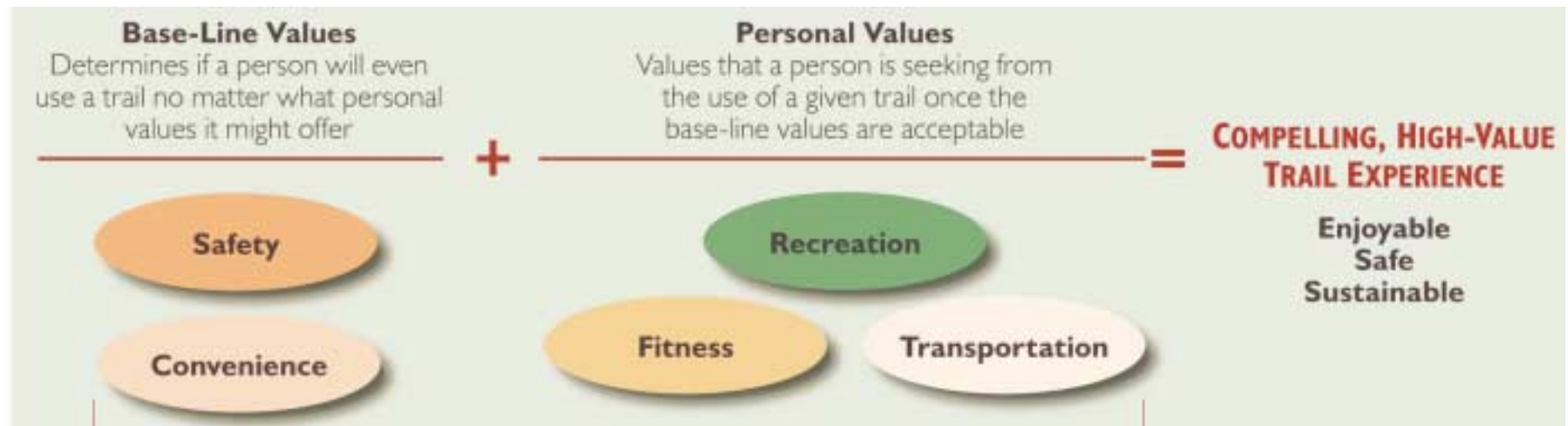
Sustainability is a function of:

- **Properly defining users and their expectations**
- Using sound techniques for designing specific types of trails
- Respecting the nuances of ecological sustainability and the fact that all development, including trails, have an impact
- Using well-tested best practices to build trails

The MN DNR trails manual repeatedly underscores the importance of all of these factors in creating sustainable trails of all classifications

Principles of Designing Quality Recreational Trails

Paying attention to user values is important to creating enjoyable, safe, and sustainable trails that engender stewardship



People tend to use and take care of what they value ... so design quality does indeed matter!

Example User Profiles – Paved Trail

The needs and expectations can be quite different between trail users!

Trail Use Pattern

Recreation Setting Preferences

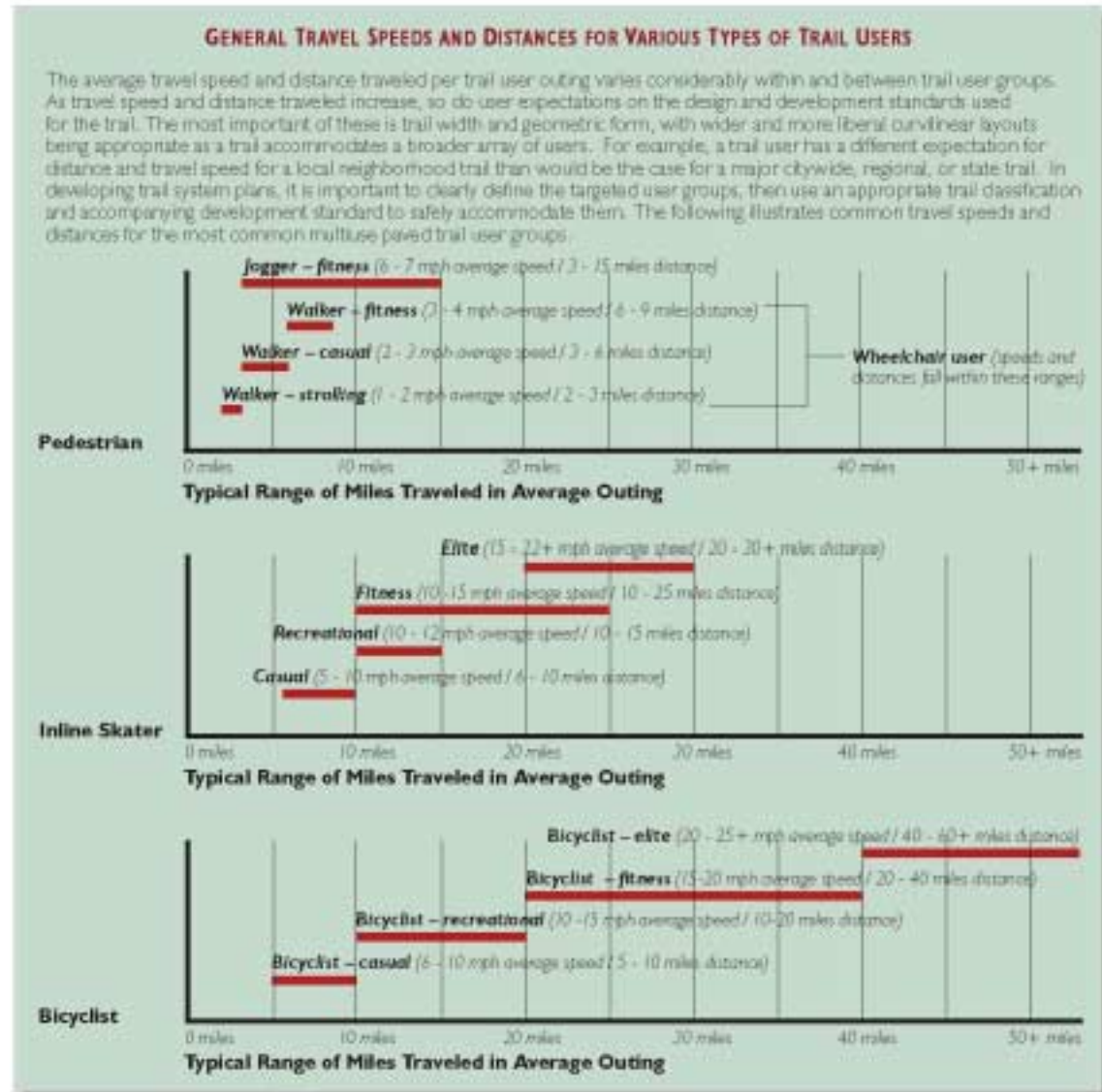
Motivation/Activity Style Elements

BICYCLISTS PROFILES	
The following profiles were compiled from various sources, particularly the Profiles of Trail User Populations – Minnesota Border to Border Trail Study (DNR) to highlight the preferences of typical bicyclists.	
Type Family Bicyclist	Preference Profile Trail Use Pattern: • Rides for fun and quiet streets (to avoid heavy traffic), with preference for trails if conveniently located • Most would use trails close to home, but will also use trails extensively on vacation Recreation Setting Preferences: • Convenient location to trails is most important consideration • Quality of the riding experience is of primary importance, with length being secondary (20 miles maximum) • Convenience to both trail and playgrounds are important Motivation/Activity Style Elements: • Needs good information for planning trips and access to support facilities (rest areas, parking lots, water sources) and prefers restrooms to portable toilets • Prefers scenic areas but no challenging terrain, especially when children are along
Recreational Bicyclist	Trail Use Pattern: • Seeks out and travels to trail and bicycle-friendly areas away from home, either as a day or overnight trip • Prefers trails, but will also use roads that are safe, convenient, and not too busy Recreation Setting Preferences: • Trails shorter than 10 miles are not very desirable for repeat use; 20 miles is the desired minimum • Looped configurations of varying lengths are preferred over out and back systems • Sense of place and an interesting experience are important, with riders seeking places with scenic quality and interesting natural or (if in urban setting) built forms Motivation/Activity Style Elements: • Many seek escape from motorized traffic and value experiencing nature • Regards bicycling as an important recreational interest and is willing to make an investment in equipment • Often uses amenities, such as parks and rest areas, along the trail • As a group, interested in varying levels of trail difficulty • Destinations at reasonable distances are important to maintaining interest in a given trail
Fitness Bicyclist	Trail Use Pattern: • Will use a combination of roads and trails that are long and/or challenging enough for a good workout • Prefers trails if they are long enough (20 or more miles) and allow for faster speeds with minimal user conflicts • Will routinely use the same routes for challenges and timing, often daily Recreation Setting Preferences: • Trails need to offer varying difficulty and lengths; interconnected loops are highly preferred • Not primarily motivated by experiencing natural setting, but will select the type of trail if other requirements are met Motivation/Activity Style Elements: • Uses bicycle as primary form of exercise to maintain and improve health • Primarily rides alone or in small groups and often rides multiple times per week • Frequently extends the season by riding earlier in spring and later in the fall than recreational riders
Transportation Bicyclist	Trail Use Pattern: • Not dependent on trails, but will use them if convenient, safe, and direct Motivation/Activity Style Elements: • Bicycle is used as a form of transportation; motivation is fitness, environmental values, and economy • Lack of a safe "system" of roads (with bike lanes or routes) and trails is a major barrier • Trail design is critical, with ability to go fast with good sightlines and directness being most important

User Profiles – Paved Trail

User profiles help define the physical design requirements for a given trail

Ignoring them will diminish the trail's value



Trail Classifications

Trail classifications help discriminate between different types of trail users

.... and help ensure that the trail that is built will actually meet the needs of the intended user group(s)

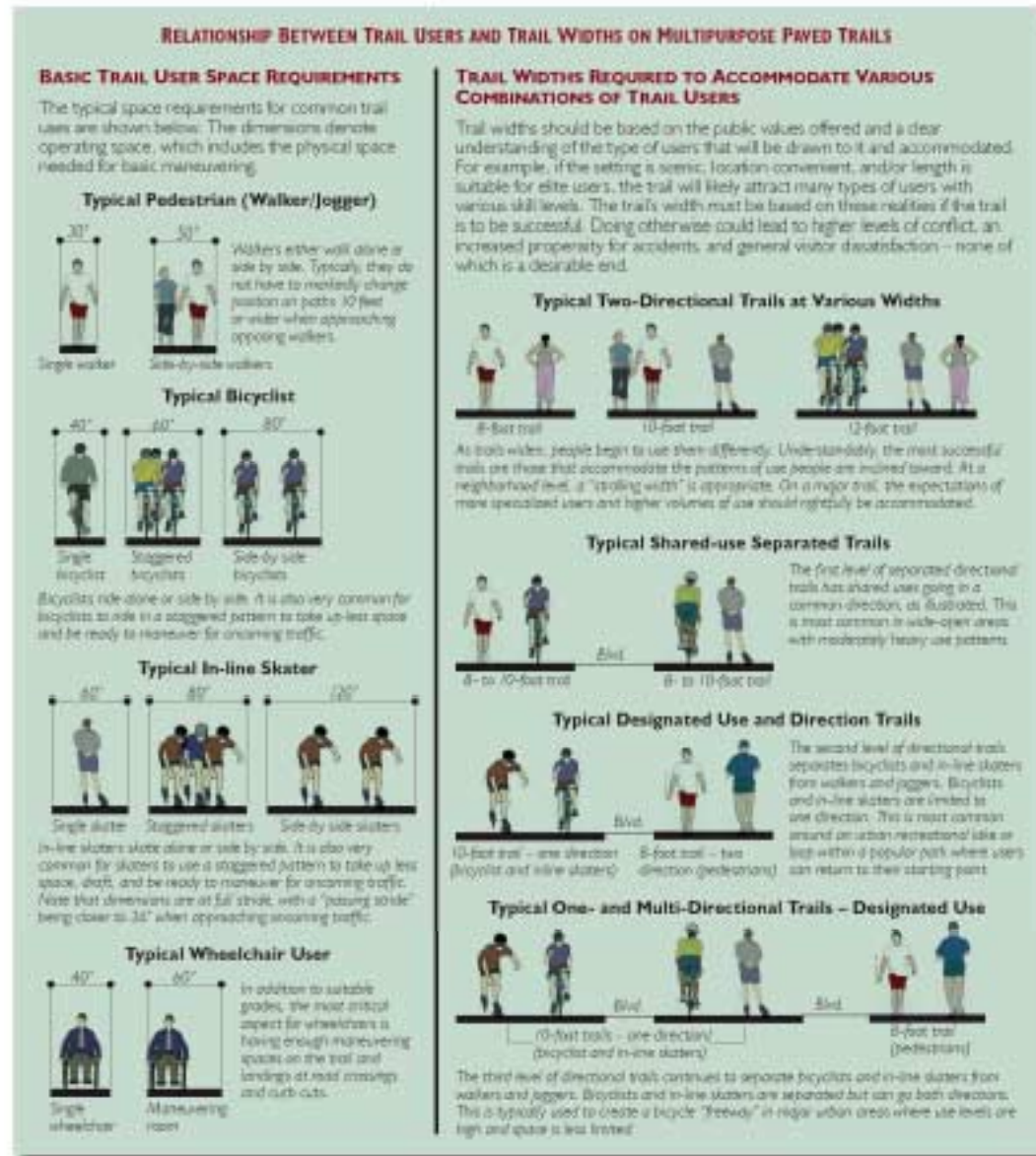


Hierarchy of Trails to Accommodate User Profiles

Within each classification, there are other standards to consider

Paved trails:

- ❑ Neighborhood trail
- ❑ City-County trail
- ❑ Regional trail
- ❑ State trail



Sub-Classifications – Shared-Use Paved Trail

Destination trail classification reflects focus on quality and recreational



.... while linking trails offer less recreational value (and often result in less use)



Example: Oak Grove



Example: Oak Grove

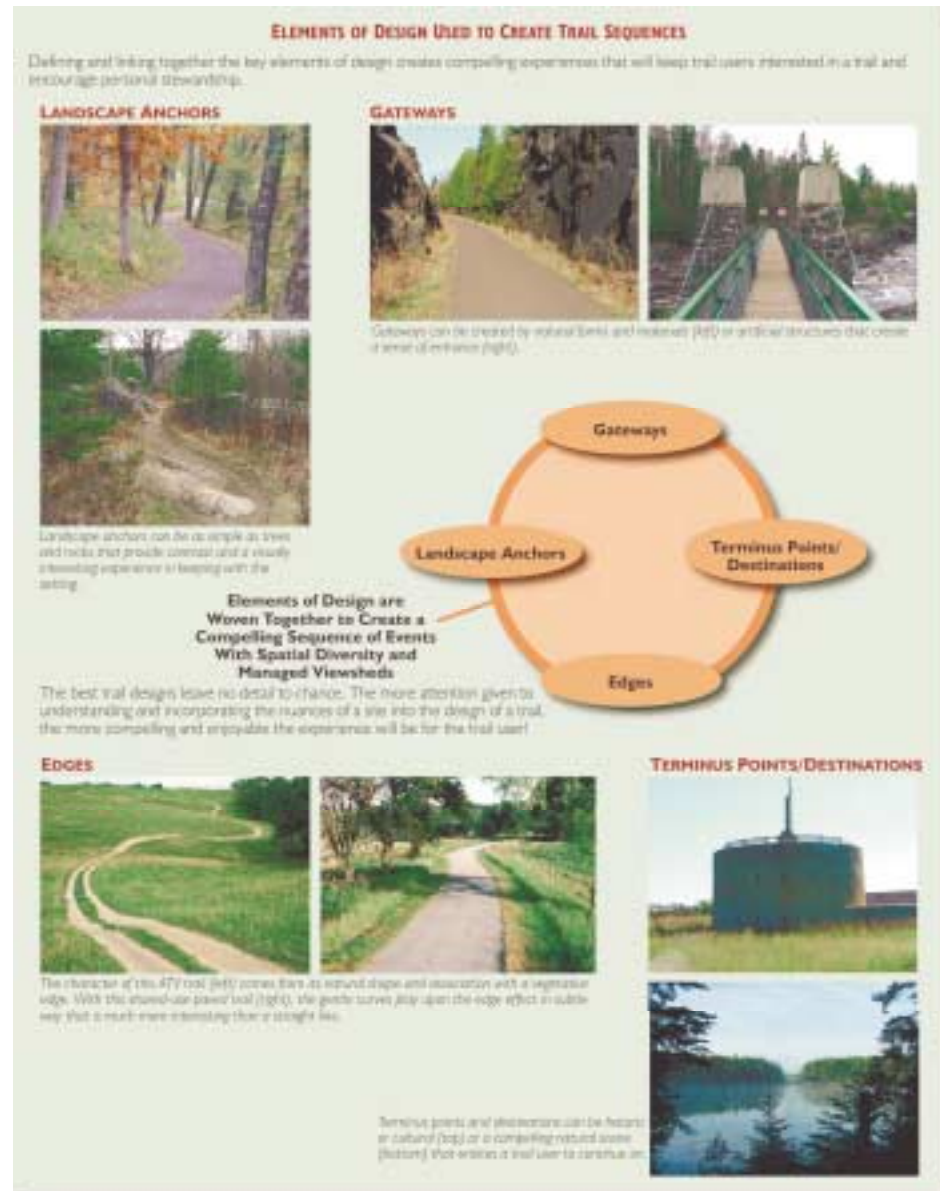


Elements of Quality Trail Design

To keep users content, the trail design must:

- ❑ Create compelling sequences
- ❑ Manage viewsheds
- ❑ Be shaped (laid out) consistent with user expectations

All elements of design need to be used to full advantage in creating fun, sustainable trails



Technical Design – Vital to Long-Term Sustainability

Adhering to sound technical practices and designing around the target user groups is critical to success and sustainability



Shifting Gears – ATV Trails

Understanding the expectations of the trail user is especially important with OHV trails

ATV riders often seek very different experiences:

- ❑ Recreational Rider
- ❑ Long Distance Rider
- ❑ Technical Challenge Rider
- ❑ Local Access/Utility Rider
- ❑ Excitement Seeker/Careless Rider

design information for this type of trail

ATV TRAIL RIDER PROFILES

The following profiles were compiled from various sources, particularly the Profile of Trail User Populations – Minnesota Border to Border Trail Study (DNR).

Type of Rider	Preference Profile
Recreational Trail Rider	Trail Use Pattern: - Travels to trails and ATV areas to ride designated trails and road systems Recreation Setting Preferences: - Natural setting is an important element of experience, with highly technical areas a secondary attraction - Prefers looped configurations with varying conditions - Natural, hilly areas make for the best trails, with long, straight trails found to be boring Motivation/Activity Style Elements: - ATV is a source of escape to natural settings - Seeking challenge to machines and operating skill - Highly social activity, with groups consisting of family and friends - Will often travel long distances to a trail if it is publicized
Long Distance Tourer	Trail Use Pattern: - Rides long distances from place to place (need extensive trail and forest road system) - Prefers loop system, but will use out and back if no other choice Recreation Setting Preferences: - Seeks challenges with a variety of conditions with obstacles and technical requirements – although not all of the trail should be highly difficult so groups can stay together - Technical challenges should include hills, forest, logs, rocks, and winding configurations - Needs access to local services, lodging, restaurants, and businesses (40 to 60 miles max range on a tank of gas) - Will use ditches and local trails to connect trails - Frequently rides in unfamiliar areas, requiring maps, signs, and other information about trail systems Motivation/Activity Style Elements: - Commonly in family groups or with close friends - Travels on machines much like snowmobiles - Tends to travel slow, wanting to see the countryside; not very interested in speed and performance
Technical Challenge Rider	Trail Use Pattern: - Needs a relatively small area, with 2 acres being the maximum size required (trails are not used for this activity) - Only a small number of riders use these areas as a main part of the sport Recreation Setting Preferences: - Prefers short, wet runs or hilly terrain that challenges machine capabilities and rider skill - Natural setting is not important, with riding challenge being the most important site selection criterion Motivation/Activity Style Elements: - Participates in groups in this highly social activity, often taking part in events and rallies where allowed - Most riders stop after several times around the area and then spend most of their time as trail riders
Local Access/Utilitarian Rider	Trail Use Pattern: - Starts trips from and return to home, with wide-ranging trip length depending on purpose for ride - Knows and rides the local forest road and trail system, but also frequently rides on road rights-of-way, private land, and other public lands as necessary to get to destination Recreation Setting Preferences: - Requires little or no developed trail system and uses roads and trails for convenience in getting around Motivation/Activity Style Elements: - Does not necessarily consider self a recreational rider; often rides for utilitarian purposes (hunting, fishing, working in the woods, traveling to and from specific destinations) – convenience of travel is key motivation
Excitement Seeker/Careless Rider	In each of the above segments, excitement seekers and careless riders may be sources of behavior problems, creating safety concerns and presenting a bad public image for the type of activity. This is a major concern of many responsible OHV riders.

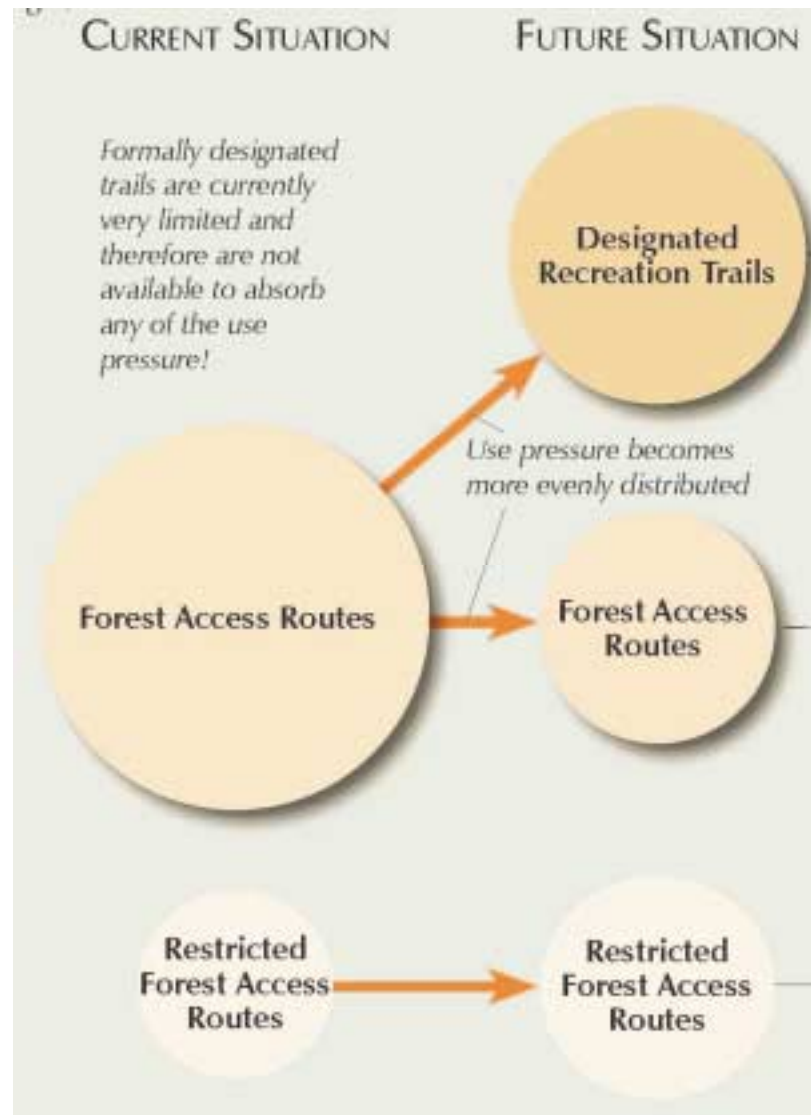
OHV Classifications

OHV classifications helps inform the type of trails needed in a system to meet user demand and foster sustainability



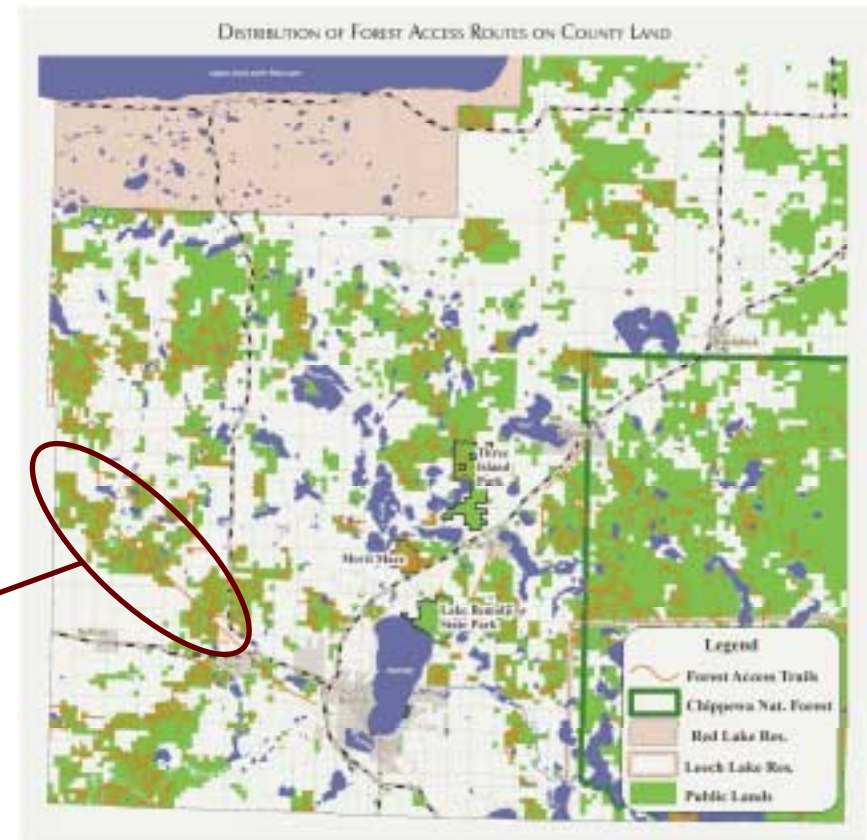
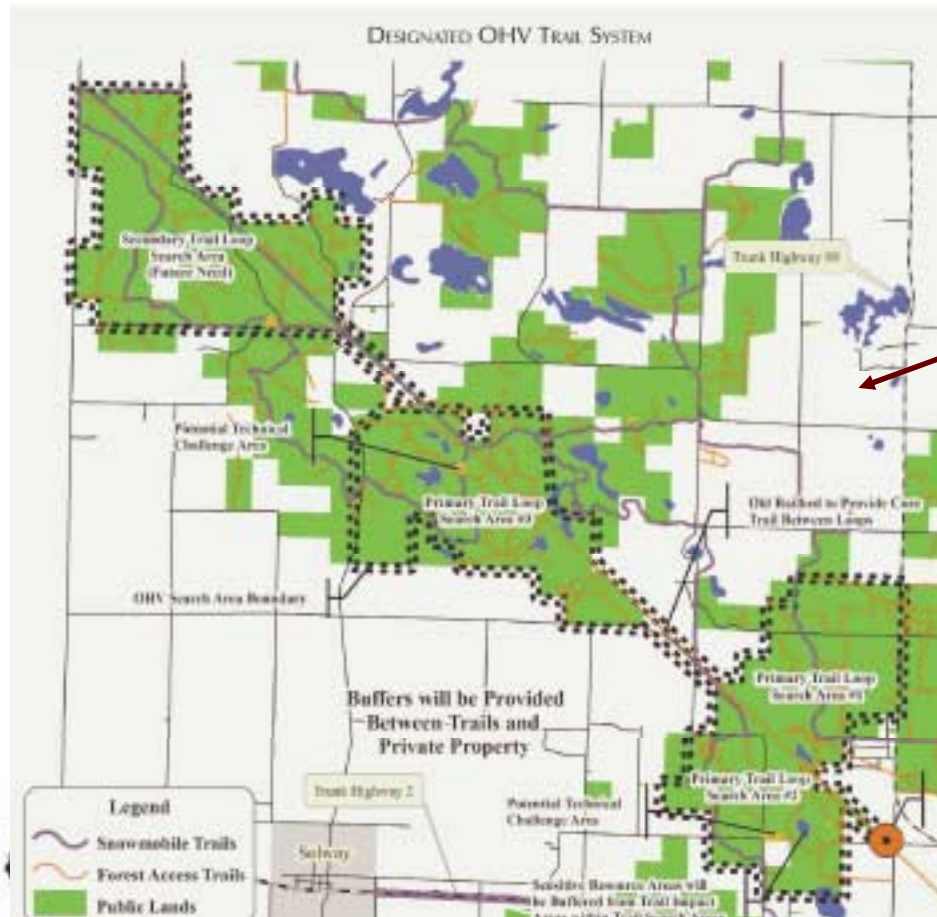
Example: Beltrami County, Northern Minnesota

OHV trail classifications were used as a means to accommodate all user groups in a more sustainable manner



Example: Beltrami County, Northern Minnesota

Intent is to shift ATV use level and intensity out of the forest over to a designated OHV site



..... then hold users accountable for actions and to retain the privilege of riding in the forest

Example: Beltrami County, Northern Minnesota

Outcomes of reasonably accommodating OHV trail users:

- More aggressive users become more confined and manageable
- User's sense of responsibility goes up
- Peer pressure can be leveraged to help enforce rules

To leverage peer pressure, responsible users have to be reasonably accommodated and be part of the process not outside it and thus being perceived as “part of the problem”

In turn, responsible users will be more diligent in exerting pressure on abusers in order to preserve their privilege!

Example: Beltrami County, Northern Minnesota

Shifting uses from one trail opportunity to another will only be successful if there is adequate reason for an OHV rider to change their habits – **which centers directly on the quality of the experience**



Example – OHV Trails

Attention to detail matters.... without which controlling use and tangential ecological impacts becomes much less assured

This....

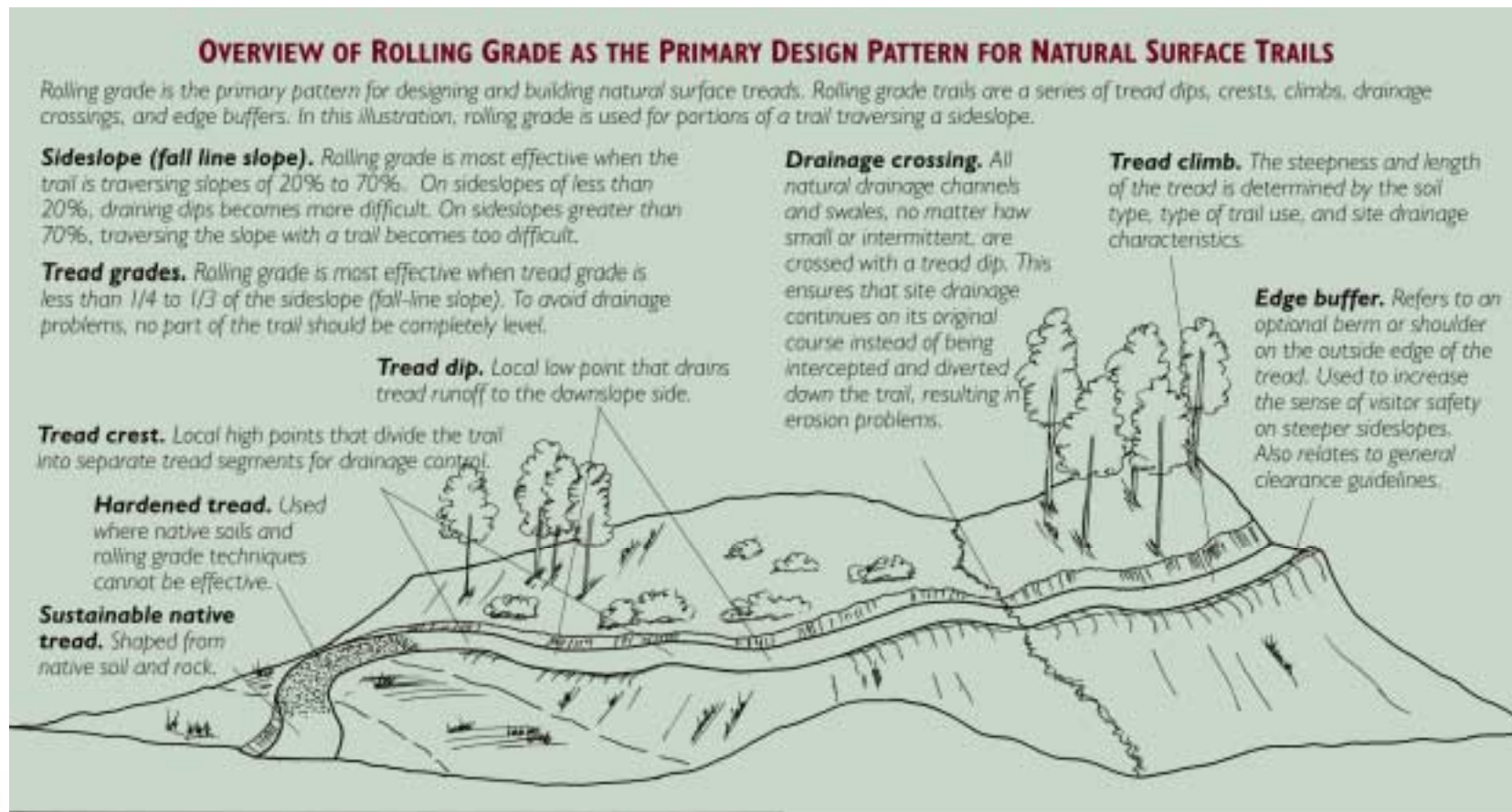


versus →



Technical Design – Vital to Long-Term Sustainability

Proper use of rolling grade ensures a trail will be interesting and sustainable



Guiding Principles of Ecologically Sustainable Trails

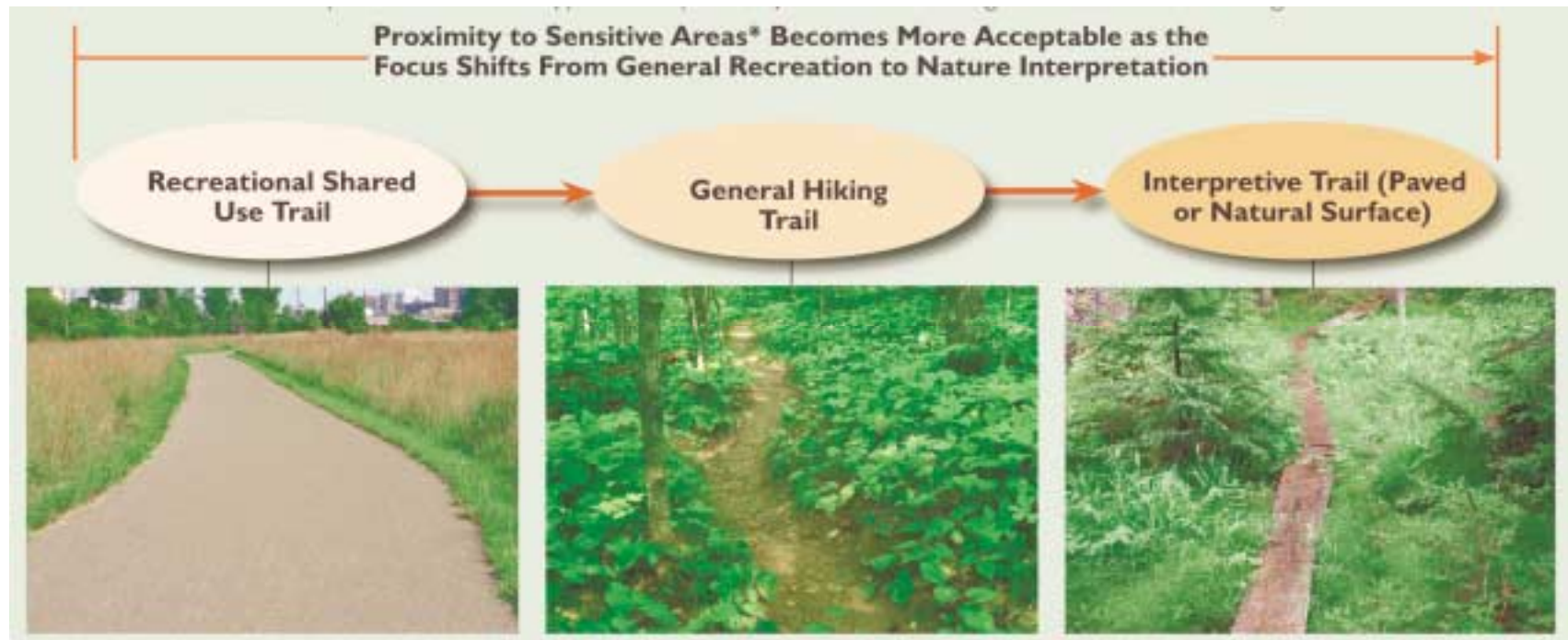
Guiding principles provide the underlying rationale for actions related to protecting, restoring, and managing natural environments associated with trail development

ADHERENCE TO THESE PRINCIPLES
WILL ENSURE ECOLOGICAL
SUSTAINABILITY



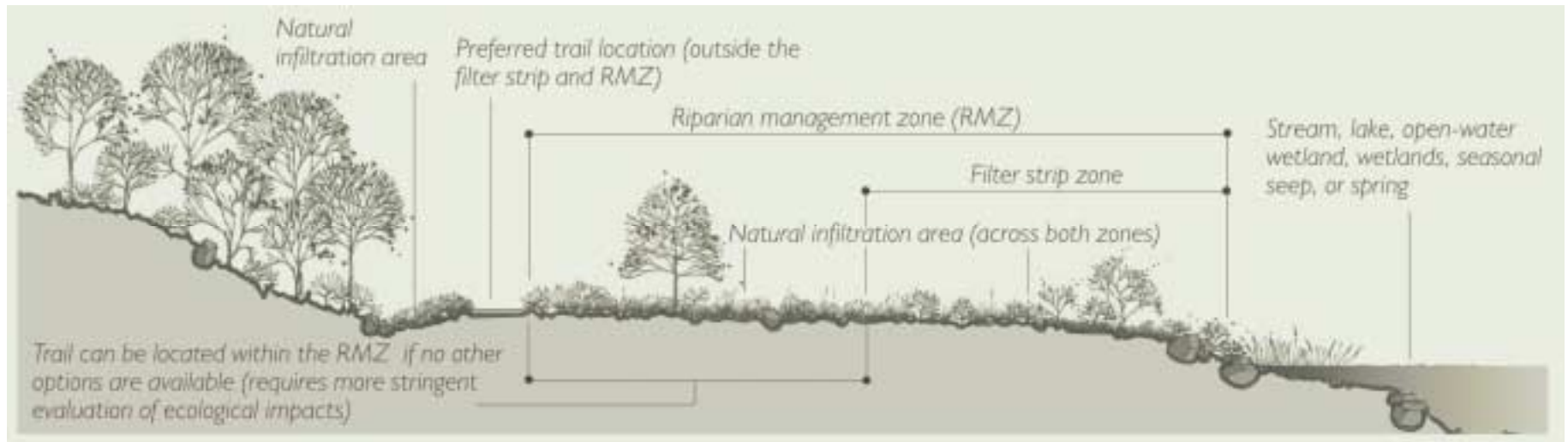
#2 – Trails in Areas Already Influenced by Humans

Trail type and site circumstances affect a trail's location in relation to sensitive ecological areas



#3 – Provide Buffers to Avoid/Protect Ecological Systems

The use of buffers is important to limit ecological impacts – especially trails prone to erosion and increased site runoff

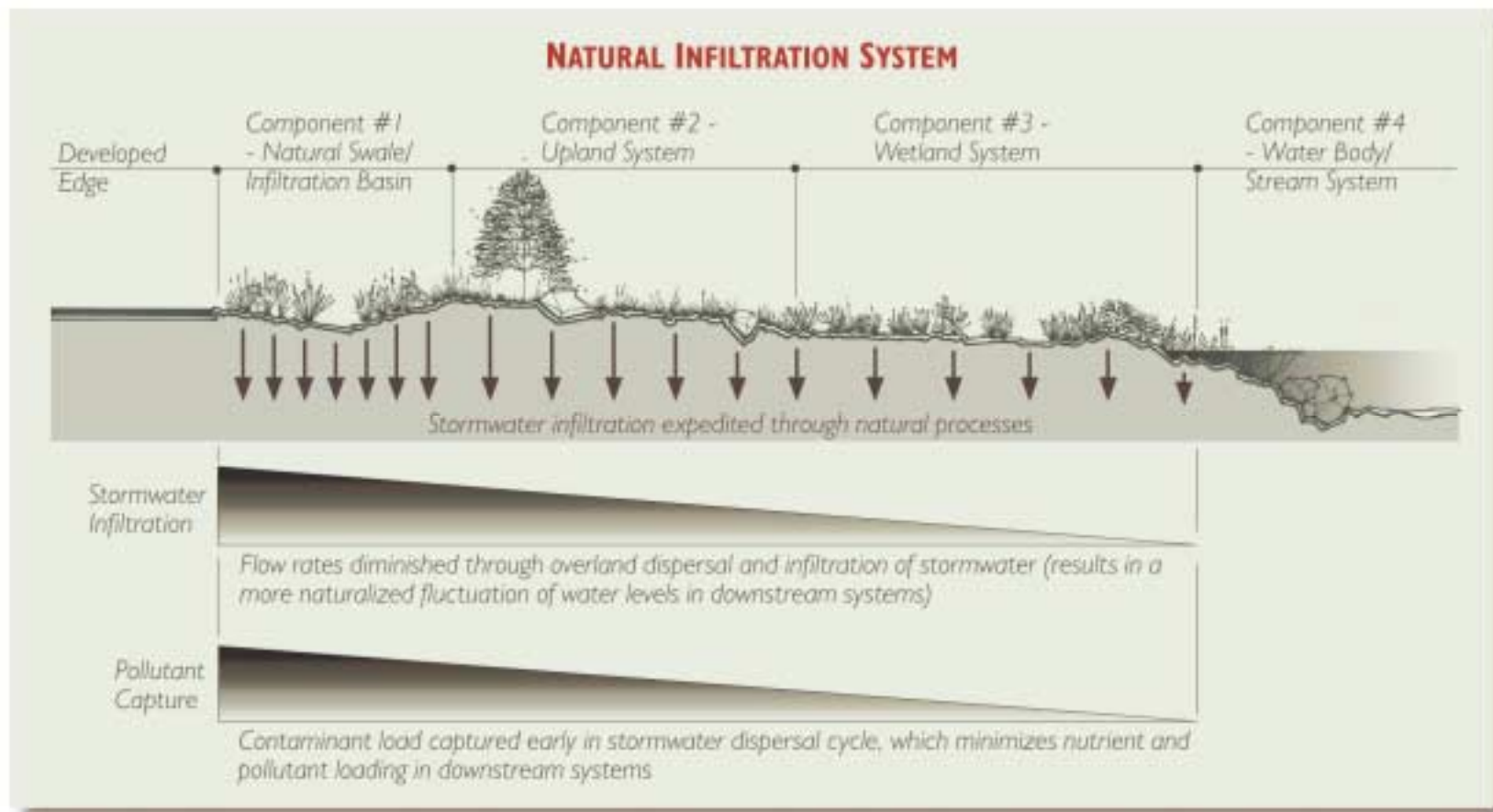


#3 – Provide Buffers to Avoid/Protect Ecological Systems



#4 – Use Natural Infiltration for Stormwater Management

Managing stormwater is one of the most important trail development considerations



#5 – Provide Ongoing Stewardship

The level of stewardship that will be provided should be defined during the planning and design phase because it will affect outcomes



#6 – Ensure that Trails Remain Sustainable

All design, management, and maintenance factors influencing a trail's sustainability need to be carefully considered and defined during the planning phase



#6 – Ensure that Trails Remain Sustainable (cont.)

Thresholds provide a sense of clarity in determining if a trail is sustainable

Each threshold triggers a predetermined action



#6 – Ensure that Trails Remain Sustainable (cont.)

Sustainable use -
no action needed



Forest access routes must be well suited for the use to remain sustainable. Typically, since these are natural management areas, timber stands is the typical basis of these routes, and sustainable.



Felling grade design and alignment ensures that the ATP trail will remain sustainable. It is a well-managed through slope and checks, which can be largely prevented with normal use.



A super-elevated curve plus embedded rocks help ensure that this resource will remain sustainable. In high concentrations, like this, it is vital to ensuring trails that help create areas of heavy use.



This sustainably designed trail naturally follows site contours, which also makes the trail a well-sloping. This is the trail through the dip that shows water off the trail for the left.



Sustainable forest access route. The ground is the lightest sand that will help keep it sustainable, perhaps over decades.



Although the DPM trail is a fairly representative call, sustainable alignment on the trail has formed a super-elevated curve that does further displacement. Since the trail remains porous and the site has only gentle slopes, erosion is not a problem and trail is sustainable.

#6 – Ensure that Trails Remain Sustainable (cont.)

Questionable use
– action required



Problem: Trail creep. The low spot on a mountain side trail is gradually well. Having trail users to get around it. Careful removal of the down well roots as a threshold is necessary to avoid soil and vegetation of the trail.



Problem: Soil rutting. With heavy use, trail creep can become a sustainability issue. If this is limited to an occasional rut, no major action is required. But if this problem persists over a significant distance, regrading or closure may be necessary.



Problem: Lack of underlying soil stability. Organic soil are slowly being eroded. Although soil is being built, the trail is slow to become sustainable, especially if soil is high to erode to adjacent systems and water bodies. If this is a low periodic regrading and filling may be the best approach if the problem continues, regrading may be necessary.



Problem: Bypassing trail restrictions. Even a few well used trails in a park can cause trail users to find another route. Left unchecked, the trail of activity can slowly depart from the trail alignment and the natural setting. Larger anchors (or "stay on trail" signs) are needed to keep the flow going well.



Problem: Erosion due to full-line alignment. In both of these cases, the soil below the full line (i.e., a signed straight up the trail) is being exposed for erosion. In the left photo, erosion is becoming a problem and soil is eroding to the base of the slope. If possible, regrading the trail could remain sustainable to well, although a better solution is to widen it. In the right photo, because of a forest canopy, erosion is clearly becoming an issue with increasing use and exposure to the elements. Regrading or closure of the segment will ultimately be necessary to keep the trail sustainable.



#6 – Ensure that Trails Remain Sustainable (cont.)

Unsustainable use
– action mandated



Problem: Compacted and displaced tread in lowest area makes the tread unsuitable. Attempting to drive the tread back into the same area unsuitably changing the hydrology of an adjacent wetland. Rerouting or closure of the trail is mandatory.



Problem: Severe soil erosion adjacent to a hillside due to poor trail design. This will intensify gulches and cause increasing levels of streambank retreat. Rerouting or closure of the trail is mandatory.



Problem: This ATV trail goes across a shallow drainage that has been deepened through use. This will continue until the hole is too deep to go through, which will force riders to bypass the area, which will cause further problems. Proactive rerouting is the best solution although closure might be necessary if the problem is persistent in the area.



Problem: Compaction and displacement on a new-level site deepening the tread of this relatively new ATV trail. Visual search will find tread because it is the lowest point. Fixing the problem by improving drainage and perhaps hardening the tread through this section are possible solutions.



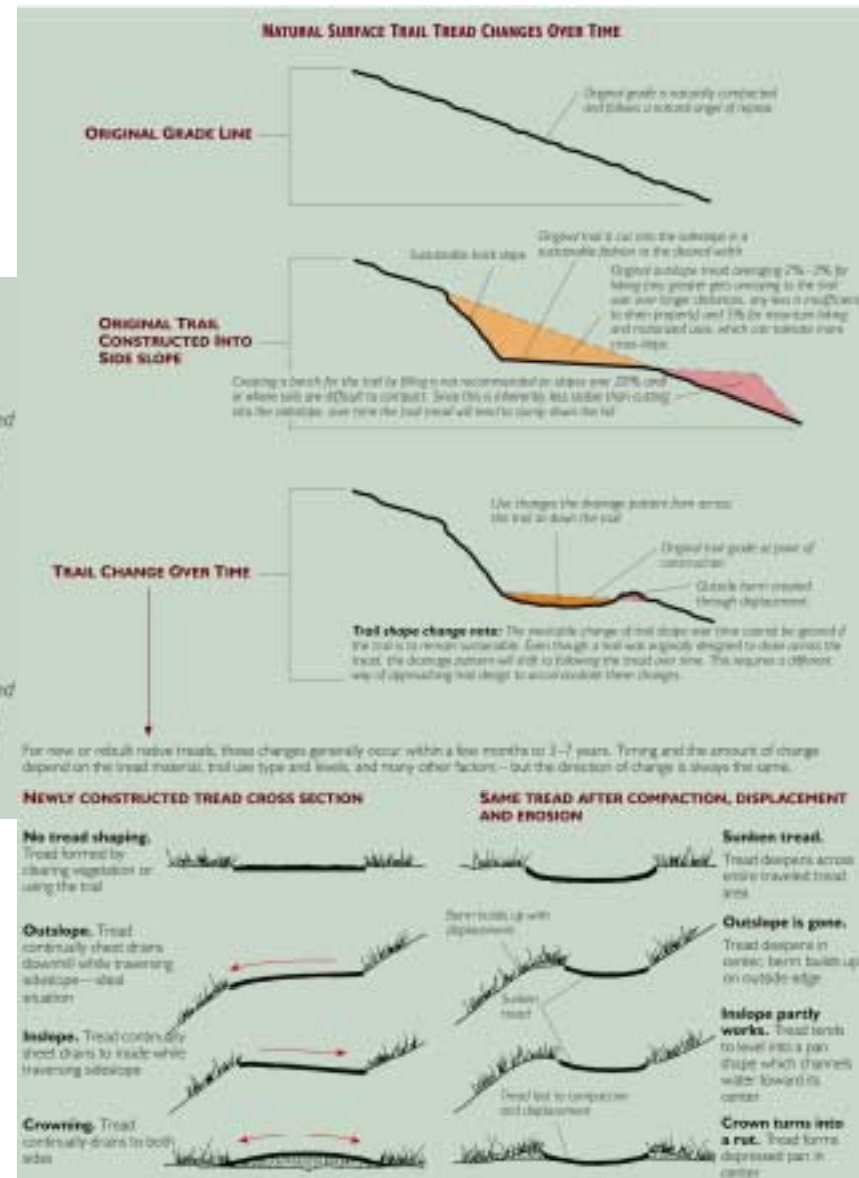
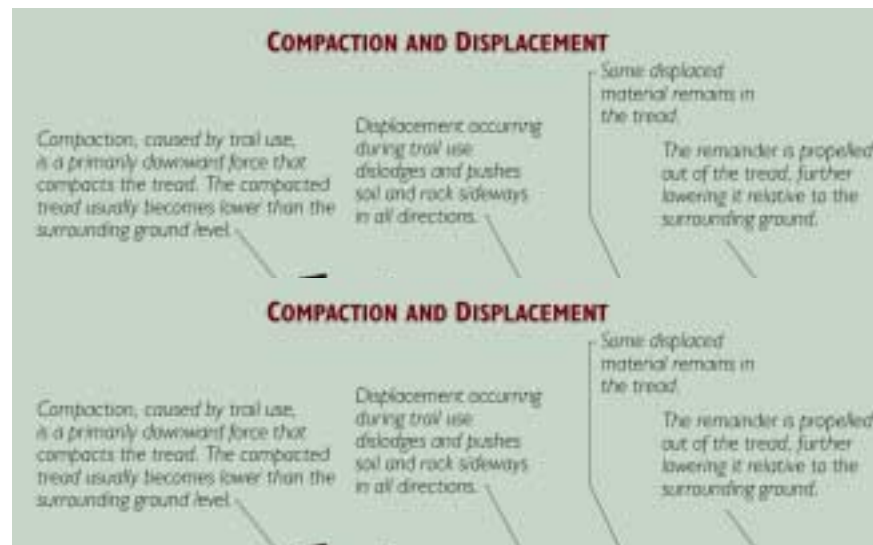
Problem: Trail splayed. If overuse occurs here and will not be corrected, it is inevitable that a trail will keep expanding until new options will be created. These problems are common in areas of erosion, with a lot of riding there is no real change. Rerouting or closure is the best solution. Where that is not possible, consider engineering using riding grade techniques and use of a low to deep water on the trail can help correct problems.

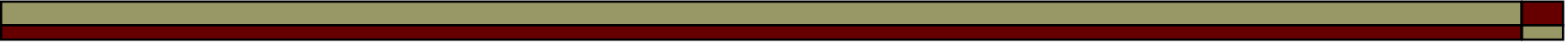


Problem: Severe, ongoing erosion on a roadless slope. Compacting the through characteristic of a site is a prescription for the kind of problem. The trail will have to be redesigned using riding grade techniques if it is to be sustainable. Otherwise, closure will ultimately be necessary as the problem gets worse.

Technical Design – Vital to Long-Term Sustainability

Anticipating how trails change over time must be factored into their initial design





MN DNR Trail Guidelines

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For copies of the publication

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Thank you!

Appendix G – Pyramid Methodology



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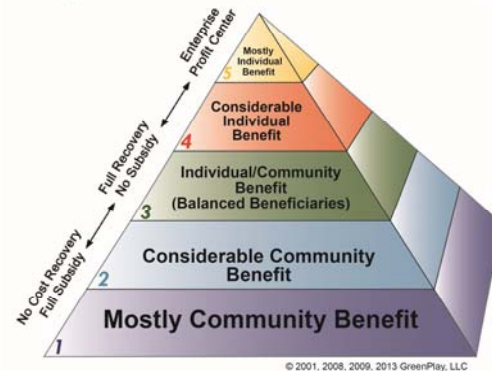
THE PYRAMID METHODOLOGY: COST RECOVERY AND SUBSIDY ALLOCATION PHILOSOPHY

The creation of a cost recovery and subsidy allocation philosophy and policy is a key component to maintaining an agency's financial control, equitably pricing offerings, and helping to identify core services including programs and facilities.

Critical to this philosophical undertaking is the support and buy-in of elected officials and advisory boards, staff, and ultimately, citizens. Whether or not significant changes are called for, the organization should be certain that it philosophically aligns with its constituents. The development of a financial resource allocation philosophy and policy is built upon a very logical foundation, based upon the theory that those who benefit from parks and recreation services ultimately pay for services.



The Pyramid Methodology



The development of a financial resource allocation philosophy can be separated into the following steps:

Step 1 – Building on Your Organization's Values, Vision, and Mission

The premise of this process is to align agency services with organizational values, vision, and mission. It is important that organizational values are reflected in the vision and mission. Oftentimes, mission statements are a starting point and further work needs to occur to create a more detailed common understanding of the interpretation of the mission and a vision for the future. This is accomplished by engaging staff and community members in a discussion about a variety of Filters.

Step 2 – Understanding the Pyramid Methodology, the Benefits Filter, and Secondary Filters

Filters are a series of continuums covering different ways of viewing service provision. **Filters** influence the final positioning of services as they relate to each other and are summarized below. The **Benefits Filter**, however, forms the **foundation** of the **Pyramid Model** and is used in this discussion to illustrate a cost recovery philosophy and policies for parks and recreation organizations.

Filter	Definition
Benefit	Who receives the benefit of the service? (Skill development, education, physical health, mental health, safety)
Access/Type of Service	Is the service available to everyone equally? Is participation or eligibility restricted by diversity factors (i.e., age, ability, skill, financial)?
Organizational Responsibility	Is it the organization's responsibility or obligation to provide the service based upon mission, legal mandate, or other obligation or requirement?
Historical Expectations	What have we always done that we cannot change?
Anticipated Impacts	What is the anticipated impact of the service on existing resources? On other users? On the environment? What is the anticipated impact of not providing the service?
Social Value	What is the perceived social value of the service by constituents, city staff and leadership, and policy makers? Is it a community builder?

THE BENEFITS FILTER

The principal foundation of the Pyramid is the **Benefits Filter**. Conceptually, the base level of the pyramid represents the mainstay of a public parks and recreation system. Services appropriate to higher levels of the pyramid should only be offered when the preceding levels below are comprehensive enough to provide a foundation for the next level. This foundation and upward progression is intended to represent public parks and recreation's core mission, while also reflecting the growth and maturity of an organization as it enhances its service offerings.

It is often easier to integrate the values of the organization with its mission if they can be visualized. An ideal philosophical model for this purpose is the pyramid. In addition to a physical structure, *pyramid* is defined by Webster's Dictionary as "an immaterial structure built on a broad supporting base and narrowing gradually to an apex." Parks and recreation programs are built with a broad supporting base of core services, enhanced with more specialized services as resources allow. Envision a pyramid sectioned horizontally into five levels.

MOSTLY COMMUNITY Benefit

The foundational level of the Pyramid is the largest, and includes those services including programs and facilities which **MOSTLY** benefit the **COMMUNITY** as a whole. These services may increase property values, provide safety, address social needs, and enhance quality of life for residents. The community generally pays for these basic services via tax support. These services are generally offered to residents at a minimal charge or with no fee. A large percentage of the agency's tax support would fund this level of the Pyramid.

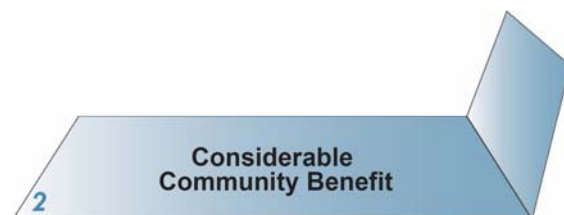


Examples of these services could include: the existence of the community parks and recreation system, the ability for youngsters to visit facilities on an informal basis, low-income or scholarship programs, park and facility planning and design, park maintenance, or others.

NOTE: All examples above are generic – individual agencies vary in their determination of which services belong in the foundation level of the Pyramid based upon agency values, vision, mission, demographics, goals, etc.

CONSIDERABLE COMMUNITY Benefit

The second and smaller level of the Pyramid represents services which promote individual physical and mental well-being, and may begin to provide skill development. They are generally traditionally expected services and/or beginner instructional levels. These services are typically assigned fees based upon a specified percentage of direct (and may also include indirect) costs. These costs are partially offset by both a tax subsidy to account for **CONSIDERABLE COMMUNITY** benefit and participant fees to account for the **Individual** benefit received from the service.



Examples of these services could include: the capacity for teens and adults to visit facilities on an informal basis, ranger led interpretive programs, beginning level instructional programs and classes, etc.

BALANCED INDIVIDUAL/COMMUNITY Benefit

The third and even smaller level of the Pyramid represents services that promote individual physical and mental well-being, and provide an intermediate level of skill development. This level provides balanced **INDIVIDUAL** and **COMMUNITY** benefit and should be priced accordingly. The individual fee is set to recover a higher percentage of cost than those services that fall within lower Pyramid levels.



Examples of these services could include: summer recreational day camp, summer sports leagues, year-round swim team, etc.

CONSIDERABLE INDIVIDUAL Benefit

The fourth and still smaller Pyramid level represents specialized services generally for specific groups, and those which may have a competitive focus. Services in this level may be priced to recover full cost, including all direct and indirect expenses.



Examples of these services could include: specialty classes, golf, and outdoor adventure programs.

MOSTLY INDIVIDUAL Benefit

At the top of the Pyramid, the fifth and smallest level represents services which have profit center potential, may be in an enterprise fund, may be in the same market space as the private sector, or may fall outside the core mission of the agency. In this level, services should be priced to recover full cost in addition to a designated profit percentage.



Examples of these activities could include: elite diving teams, golf lessons, food concessions, company picnic rentals, and other facility rentals such as for weddings or other services.

Step 3 – Developing the Organization’s Categories of Service

In order to avoid trying to determine cost recovery or subsidy allocation levels for each individual agency service including every program, facility, or property, it is advantageous to categorize agency services into like categories. This step also includes the development of category definitions that detail and define each category and service inventory “checks and balances” to ensure that all agency services belong within a developed category. *Examples of Categories of Service could include: Beginner Instructional Classes, Special Events, and Concessions/Vending.*

Step 4 – Sorting the Categories of Service onto the Pyramid

It is critical that this sorting step be done with staff, governing body, and citizen representatives involved. This is where ownership is created for the philosophy, while participants discover the current and possibly varied operating histories, cultures, and organizational values, vision, and mission. It is the time to develop consensus and get everyone on the same page – the page that is written together. Remember, this effort must reflect the community and must align with the thinking of policy makers.

Sample Policy Development Language:

XXX community brought together staff from across the department, agency leadership, and citizens to sort existing programs into each level of the Pyramid. The process was facilitated by an objective and impartial facilitator in order to hear all viewpoints. It generated discussion and debate as participants discovered what different people had to say about serving culturally and economically varied segments of the community, about historic versus active-use parks, about the importance of adult versus youth versus senior activities, and other philosophical and values-based discussions. This process gets at both the “what” and “why” with the intention of identifying common ground and consensus.

Step 5 – Defining Direct and Indirect Costs

The definition of direct and indirect costs can vary from agency to agency. What is important is that all costs associated with directly running a program or providing a service are identified and consistently applied across the system. Direct costs typically include all the specific, identifiable expenses (fixed and variable) associated with providing a service. These expenses would not exist without the service and may be variable costs. Defining direct costs, along with examples and relative formulas is necessary during this step.

Indirect costs typically encompass overhead (fixed and variable) including the administrative costs of the agency. These costs would exist without any specific service but may also be attributed to a specific agency operation (in which case they are direct expenses of that operation). If desired, all or a portion of indirect costs can be allocated, in which case they become a direct cost allocation.

Step 6 – Determining (or Confirming) Current Subsidy/Cost Recovery Levels

This step establishes the expectation that the agency will confirm or determine current cost recovery and subsidy allocation levels by service area based on the new or revised definition of direct and in-direct costs. This will include consideration of revenues sources and services costs or expenses. Typically, staff may not be cost accounting consistently, and these inconsistencies will become apparent. Results of this step will identify whether staff members know what it costs to provide services to the community, whether staff have the capacity or resources necessary to account for and track costs, whether accurate cost recovery levels can be identified, and whether cost centers or general ledger line items align with how the agency may want to track these costs in the future.

Step 7 – Establishing Cost Recovery/Subsidy Goals

Subsidy and cost recovery are complementary. If a program is subsidized at 75%, it has a 25% cost recovery, and vice-versa. It is more powerful to work through this exercise thinking about where the tax subsidy is used rather than what is the cost recovery. When it is complete, you can reverse thinking to articulate the cost recovery philosophy, as necessary.

The overall subsidy/cost recovery level is comprised of the average of everything in all of the levels together as a whole. This step identifies what the current subsidy level is for the programs sorted into each level. There may be quite a range within each level, and some programs could overlap with other levels of the pyramid. This will be rectified in the final steps.

This step must reflect your community and must align with the thinking of policy makers regarding the broad picture financial goals and objectives.

Examples

Categories in the bottom level of the Pyramid may be completely or mostly subsidized, with the agency having established limited cost recovery to convey the value of the experience to the user. An established 90-100% subsidy articulates the significant community benefit resulting from these categories.

The top level of the Pyramid may range from 0% subsidy to 50% excess revenues above all costs, or more. Or, the agency may not have any Categories of Service in the top level.

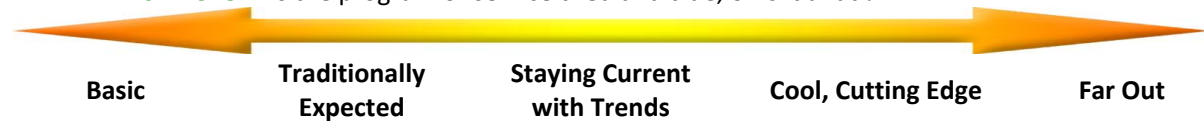
Step 8 – Understanding and Preparing for Influential Factors and Considerations

Inherent to sorting programs onto the Pyramid model using the Benefits and other filters is the realization that other factors come into play. This can result in decisions to place services in other levels than might first be thought. These factors also follow a continuum; however, do not necessarily follow the five levels like the Benefits Filter. In other words, a specific continuum may fall completely within the first two levels of the Pyramid. These factors can aid in determining core versus ancillary services. These factors represent a layering effect and should be used to make adjustments to an initial placement on the Pyramid.

THE COMMITMENT FACTOR: What is the intensity of the program; what is the commitment of the participant?



THE TRENDS FACTOR: Is the program or service tried and true, or is it a fad?



THE POLITICAL FILTER: What is out of our control?

This filter does not operate on a continuum, but is a reality, and will dictate from time to time where certain programs fit in the pyramid

THE MARKETING FACTOR: What is the effect of the program in attracting customers?



THE RELATIVE COST TO PROVIDE FACTOR: What is the cost per participant?



THE ECONOMIC CONDITIONS FACTOR: What are the financial realities of the community?



FINANCIAL GOALS FACTOR: Are we targeting a financial goal such as increasing sustainability, decreasing subsidy reliance?



Step 9 – Implementation

Across the country, ranges in overall cost recovery levels can vary from less than 10% to over 100%. The agency sets their goals based upon values, vision, mission, stakeholder input, funding, and/or other criteria. This process may have been completed to determine present cost recovery levels, or the agency may have needed to increase cost recovery levels in order to meet budget targets. Sometimes, simply implementing a policy to develop equity is enough without a concerted effort to increase revenues. Upon completion of steps 1-8, the agency is positioned to illustrate and articulate where it has been and where it is heading from a financial perspective.

Step 10 – Evaluation

The results of this process may be used to:

- articulate and illustrate a comprehensive cost recovery and subsidy allocation philosophy
- train staff at all levels as to why and how things are priced the way they are
- shift subsidy to where it is most appropriately needed
- benchmark future financial performance
- enhance financial sustainability
- recommend service reductions to meet budget subsidy targets, or show how revenues can be increased as an alternative
- justifiably price new services

This Cost Recovery/Subsidy Allocation Philosophy: The Pyramid Methodology Outline is provided by:



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Appendix H – Sample Sponsorship Policy

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Sample

XX

Parks & Recreation Department

Sponsorship Policy

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XX Parks & Recreation Department Sponsorship Policy

Introduction

The following guidelines in this Sponsorship Policy have been specifically designed for the XX Parks & Recreation Department, while considering that these guidelines may be later adapted and implemented on a city-wide basis. Some assumptions regarding this policy are:

- Partnerships for recreation and parks facilities and program development may be pursued based on the XX Partnership Policy, encouraging the development of partnerships for the benefit of the city, its citizens, and potential partners. Sponsorships are one type of partnership, and one avenue of procurement for alternative funding resources. The Sponsorship Policy may evolve as the needs of new projects and other City departments are incorporated into its usage.
- Broad guidelines are offered in this policy primarily to delineate which types of sponsors and approval levels are currently acceptable for the XX Parks & Recreation Department.
- The policy should ensure that the definition of potential sponsors may include non-commercial community organizations (for example: YMCAs and Universities), but does not include a forum for non-commercial speech or advertising.
- Sponsorships are clearly defined and are different from advertisements. Advertisements are one type of benefit that may be offered to a sponsor in exchange for cash or in-kind sponsorship.
- The difference between sponsors and donors must be clarified, as some staff and the public often confuse and misuse these terms.

Structure

Part A of this document gives the **Sponsorship Policy**

Part B gives the **Levels of Sponsorship Tiers and Benefits**

Part C provides the vocabulary and **Glossary of Sponsorship Terms**

Part A.
Sponsorship Policy
XX Parks & Recreation Department

I. Purpose

In an effort to utilize and maximize the community's resources, it is in the best interest of the City's Parks & Recreation Department to create and enhance relationship-based sponsorships. This may be accomplished by providing local, regional, and national commercial businesses and non-profit groups a method for becoming involved with the many opportunities provided by the Parks & Recreation Department. The Department delivers quality, life-enriching activities to the broadest base of the community. This translates into exceptional visibility for sponsors and supporters. It is the goal of the Department to create relationships and partnerships with sponsors for the financial benefit of the Department.

Sponsorships vs. Donations

It is important to note that there is a difference between a sponsorship and a philanthropic donation. Basically, sponsorships are cash or in-kind products and services offered by sponsors with the clear expectation that an obligation is created. The recipient is obliged to return something of value to the sponsor. The value is typically public recognition and publicity or advertising highlighting the contribution of the sponsor and/or the sponsor's name, logo, message, products, or services. The Sponsor usually has clear marketing objectives that they are trying to achieve, including but not limited to the ability to drive sales directly based on the sponsorship, and/or quite often, the right to be the exclusive sponsor in a specific category of sales. The arrangement is typically consummated by a letter of agreement or contractual arrangement that details the particulars of the exchange.

In contrast, a donation comes with no restrictions on how the money or in-kind resources are used. This policy specifically addresses sponsorships, the agreements for the procurement of the resources, and the benefits provided in return for securing those resources. Since donations or gifts come with no restrictions or expected benefits for the donor, a policy is generally not needed.

II. Guidelines for Acceptable Sponsorships

Sponsors should be businesses, non-profit groups, or individuals that promote mutually beneficial relationships for the Parks & Recreation Department. All potentially sponsored properties (facilities, events, or programs) should be reviewed in terms of creating synergistic working relationships with regard to benefits, community contributions, knowledge, and political sensitivity. All sponsored properties should promote the goals and mission of the Parks & Recreation Department as follows:

NEED SPECIFIC MISSION STATEMENT

Sample XX Parks & Recreation Mission Statement:

NEED SPECIFIC GOALS

Sample Goals of the Park & Recreation Department:

III. Sponsorship Selection Criteria

A. Relationship of Sponsorship to Mission and Goals

The first major criterion is the appropriate relationship of a sponsorship to the above outlined Parks & Recreation Department's Mission and Goals. While objective analysis is ideal, the appropriateness of a relationship may sometimes be necessarily subjective. This policy addresses this necessity by including Approval Levels from various levels of City management staff and elected officials, outlined in **Section B**, to help assist with decisions involving larger amounts and benefits for sponsorship.

The following questions are the major guiding components of this policy and should be addressed prior to soliciting potential sponsors:

- Is the sponsorship reasonably related to the purpose of the facility or programs as exemplified by the Mission Statement and Goals of the Department?
- Will the sponsorship help generate more revenue and/or less cost per participant than the City can provide without it?
- What are the real costs, including staff time, for procuring the amount of cash or in-kind resources that come with the generation of the sponsorship?

Sponsorships which shall NOT be considered are those which:

- Promote environmental, work, or other practices that, if they took place in the City, would violate U.S. or state law (i.e., dumping of hazardous waste, exploitation of child labor, etc.), or promote drugs, alcohol, or tobacco, or that constitute violations of law.
- Duplicate or mimic the identity or programs of the Parks & Recreation Department or any of its divisions.

- Exploit participants or staff members of the Department.
- Offer benefits which may violate other accepted policies or the Sign Code. **DO YOU HAVE A SIGN CODE?**

B. Sponsorship Plan and Approval Levels

Each project or program that involves solicitation of Sponsors should, PRIOR to procurement, create a Sponsorship Plan specific to that project or program that is in line with the Sponsorship Levels given in **Part B**. This plan needs to be approved by the Management Team Members supervising the project and in accordance to City Partnership, Sponsorship, and Sign Code policies. In addition, each sponsorship will need separate approval if they exceed pre-specified limits. The Approval Levels are outlined below:

Under \$1,000	The program or project staff may approve this level of Agreement, with review by their supervising Management Team Member.
\$1,001 to \$10,000	The Agreement needs approval of a Management Team Member.
\$10,001 to \$25,000	The Agreement needs approval of the entire Senior Management Team and Department Director.
Over \$25,000	The Agreement needs approval of the City Supervisor (the City Supervisor may recommend a City Council or Board of Trustees review).

C. No Non-Commercial Forum is Permitted

This criterion deals with the commercial character of a sponsorship message. The City intends to create a limited forum, focused on advertisements incidental to commercial sponsorships of Parks & Recreation facilities and programs. While non-commercial community organizations or individuals may wish to sponsor Department activities or facilities for various reasons, no non-commercial speech is permitted in the limited forum created by this policy.

Advertisements incidental to commercial sponsorship must primarily propose a commercial transaction, either directly, through the text, or indirectly, through the association of the sponsor's name with the commercial transaction of purchasing the commercial goods or services which the sponsor sells.

The reasons for this portion of the Policy include:

- (1) The desirability of avoiding non-commercial proselytizing of a "captive audience" of event spectators and participants.
- (2) The constitutional prohibition on any view-point related decisions about permitted advertising coupled with the danger that the City and the Parks & Recreation Department would be associated with advertising anyway.

- (3) The desire of the City to maximize income from sponsorship, weighed against the likelihood that commercial sponsors would be dissuaded from using the same forum commonly used by persons wishing to communicate non-commercial messages, some of which could be offensive to the public.
- (4) The desire of the City to maintain a position of neutrality on political and religious issues.
- (5) In the case of religious advertising and political advertising, specific concerns about the danger of “excessive entanglement” with religion (and resultant constitutional violations) and the danger of election campaign law violations, respectively.

Guidelines for calculating the **Levels of Sponsorship Tiers and Benefits** are provided and outlined in ***Part B***.

IV. Additional Guidelines for Implementation

A. Equitable Offerings

It is important that all sponsorships of equal levels across divisions within Parks & Recreation yield the same value of benefits for potential sponsors.

B. Sponsorship Contact Database

A designated staff person or representative of the Parks & Recreation Department will keep an updated list of all current sponsors, sponsored activities, and contacts related to sponsorship.

Purpose of Maintaining the Database:

- Limit duplicate solicitations of one sponsor
- Allow management to make decisions based on most appropriate solicitations and levels of benefits offered
- Keep a current list of all Department supporters and contacts
- Help provide leads for new sponsorships, if appropriate

For staff below Management Team level, access to the database will be limited to printouts of listings of names of sponsors and their sponsored events. This limited access will provide information to help limit duplicated solicitations, and will also protect existing sponsor relationships, while allowing the evaluation of future sponsorships to occur at a management level.

If a potential sponsor is already listed, staff should not pursue a sponsorship without researching the sponsor's history with the most recently sponsored division. If more than one division wishes to pursue sponsorship by the same company, the Management Team shall make a decision based on several variables, including but not limited to:

- History of sponsorship, relationships, and types of sponsorship needed.
- Amount of funding available.
- Best use of funding based on departmental priorities.

C. Sponsorship Committee

A committee consisting of the supervisors of each program using sponsorships and other management team designees shall meet twice per year to review the database, exchange current contract samples, and recommend adjusting benefit levels and policy as needed. Changes shall not take effect before approval by the Management Team.

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Part B.

Levels of Sponsorship Tiers and Benefits

The following tiers are presented as a guideline for types of benefits that may be presented as opportunities for potential sponsors.

Each sponsorship will most likely need to be individually negotiated. One purpose for these guidelines is to create equity in exchanges across sponsorship arrangements. While for the sake of ease the examples given for levels are based on amount of sponsorship requested, the level of approval needed from City staff is really based on the amount of benefits exchanged for the resources. The levels of approval are necessary because the costs and values for different levels of benefits may vary, depending on the sponsorship. It is important to note that these values may be very different. Sponsors will not typically offer to contribute resources that cost them more than the value of resources that they will gain and, typically, seek at least a 2-1 return on their investment. Likewise, the City should not pursue sponsorships unless the total value the City receives is greater than its real costs.

A hierarchy of Sponsors for events, programs, or facilities with more than one sponsor is listed below from the highest level to the lowest. Not all Levels will necessarily be used in each Sponsorship Plan. Note that the hierarchy is not dependent on specific levels or amounts of sponsorship. Specific levels and amounts should be designed for each property before sponsorships are procured within the approved Sponsorship Plan. Complete definitions of terms are included in **Part C**.

Hierarchy of Sponsorship Levels (highest to lowest)

Parks and Recreation Department-Wide Sponsor ⇒
Facility/Park Title or Primary Sponsor ⇒
Event/Program Title or Primary Sponsor ⇒
Presenting Sponsor (Facility, Event, or Program) ⇒
Facility/Park Sponsor ⇒
Program/Event Sponsor ⇒ Media Sponsor ⇒ Official Supplier ⇒
Co-sponsor

This hierarchy will help decide the amounts to ask various sponsors for, and will determine what levels of benefits to provide. It is important to build flexibility and choice into each level so that sponsors can have the ability to choose options that will best fit their objectives. Note that the benefits listed under each level are examples of value. The listing does not mean that all of the benefits should be offered. It is a menu of options for possible benefits, depending on the circumstances. These are listed primarily as a guideline for **maximum** benefit values. It is recommended that each project create a project-specific Sponsorship Plan for approval in advance of Sponsorship procurement, based on the benefits available and the values specific to the project.

I. Sponsorship Assets and Related Benefits Inventory

***TO BE DETERMINED FOR EACH AGENCY BASED ON OFFERINGS
(PROPERTIES), VALUATION, AND DETERMINED BENEFITS***

***A tiered structure of actual values and approval levels should be
determined as part of a Sponsorship Plan.***

Part C.

Glossary of Sponsorship Terms

Activation

The marketing activity a company conducts to promote its sponsorship. Money spent on activation is over and above the rights fee paid to the sponsored property. Also known as leverage.

Advertising

The direct sale of print or some other types of City communication medium to provide access to a select target market.

Ambush Marketing

A promotional strategy whereby a non-sponsor attempts to capitalize on the popularity/prestige of a property by giving the false impression that it is a sponsor. Often employed by the competitors of a property's official sponsors.

Audio Mention

The mention of a sponsor during a TV or radio broadcast.

Business-to-Business Sponsorship

Programs intended to influence corporate purchase/awareness, as opposed to individual consumers.

Category Exclusivity

The right of a sponsor to be the only company within its product or service category associated with the sponsored property.

Cause Marketing

Promotional strategy that links a company's sales campaign directly to a non-profit organization. Generally includes an offer by the sponsor to make a donation to the cause with purchase of its product or service. Unlike philanthropy, money spent on cause marketing is a business expense, not a donation, and is expected to show a return on investment.

Co-sponsors

Sponsors of the same property.

CPM (Cost per Thousand)

The cost to deliver an ad message to a thousand people.

Cross-Promotions

A joint marketing effort conducted by two or more co-sponsors using the sponsored property as the central theme.

Donations

Cash or in-kind gifts that do not include any additional negotiated conditions in return.
Synonyms: Philanthropy, Patronage.

Editorial Coverage

Exposure that is generated by media coverage of the sponsored property that includes mention of the sponsor.

Emblem

A graphic symbol unique to a property. Also called a mark.

Escalator

An annual percentage increase built into the sponsorship fee for multi-year contracts. Escalators are typically tied to inflation.

Exclusive Rights

A company pays a premium or provides economic benefit in exchange for the right to be the sole advertised provider, at the most competitive prices, of goods purchased by consumers within Parks & Recreation Department facilities and parks.

Fulfillment

The delivery of benefits promised to the sponsor in the contract.

Hospitality

Hosting key customers, clients, government officials, employees, and other VIPs at an event or facility. Usually involves tickets, parking, dining, and other amenities, often in a specially designated area, and may include interaction with athletes.

In-Kind Sponsorship

Payment (full or partial) of sponsorship fee in goods or services rather than cash.

Licensed Merchandise

Goods produced by a manufacturer (the licensee) who has obtained a license to produce and distribute the official Marks on products such as clothing and souvenirs.

Licensee

Manufacturer which has obtained a license to produce and distribute Licensed Merchandise.

Licensing

Right to use a property's logos and terminology on products for retail sale. Note: While a sponsor will typically receive the right to include a property's marks on its packaging and advertising, sponsors are not automatically licensees.

Mark

Any official visual representation of a property, including emblems and mascots.

Mascot

A graphic illustration of a character, usually a cartoon figure, used to promote the identity of a property.

Media Equivalencies

Measuring the exposure value of a sponsorship by adding up all the coverage it generated and calculating what it would have cost to buy a like amount of ad time or space in those outlets based on media rate cards.

Media Sponsor

TV and radio stations, print media, and outdoor advertising companies that provide either cash, or more frequently advertising time or space, to a property in exchange for official designation.

Municipal Marketing

Promotional strategy linking a company to community services and activities (sponsorship of parks and recreation programs, libraries, etc.)

Option to Renew

Contractual right to renew a sponsorship on specified terms.

Philanthropy

Support for a non-profit property where no commercial advantage is expected.
Synonym: Patronage.

Perimeter Advertising

Stationary advertising around the perimeter of an arena or event site, often reserved for sponsors.

Premiums

Souvenir merchandise, produced to promote a sponsor's involvement with a property (customized with the names/logos of the sponsor and the property).

Presenting Sponsor

The sponsor that has its name presented just below that of the sponsored property. In presenting arrangements, the event/facility name and the sponsor name are not fully integrated since the word(s) "presents" or "presented by" always come between them.

Primary Sponsor

The sponsor paying the largest fee and receiving the most prominent identification (Would be naming rights or title sponsor if sponsored property sold name or title).

Property

A unique, commercially exploitable entity (could be a facility, site, event, or program)
Synonyms: sponsee, rightsholder, seller.

Right of First Refusal

Contractual right granting a sponsor the right to match any offer the property receives during a specific period of time in the sponsor's product category.

Selling Rights

The ability of a sponsor to earn back some or all of its sponsorship fee selling its product or service to the property or its attendees or members.

Signage

Banners, billboards, electronic messages, decals, etc., displayed on-site and containing sponsors ID.

Sole Sponsor

A company that has paid to be the only sponsor of a property.

Sponsee

A property available for sponsorship.

Sponsor

An entity that pays a property for the right to promote itself and its products or services in association with the property.

Sponsor ID

Visual and audio recognition of sponsor in property's publications and advertising; public-address and on-air broadcast mentions.

Sponsorship

The relationship between a sponsor and a property, in which the sponsor pays a cash or in-kind fee in return for access to the commercial potential associated with the property.

Sponsorship Agency

A firm which specializes in advising on, managing, brokering, or organizing sponsored properties. The agency may be employed by either the sponsor or property.

Sponsorship Fee

Payment made by a sponsor to a property.

Sports Marketing

Promotional strategy linking a company to sports (sponsorship of competitions, teams, leagues, etc.).

Supplier

Official provider of goods or services in exchange for designated recognition. This level is below official sponsor, and the benefits provided are limited accordingly.

Title Sponsor

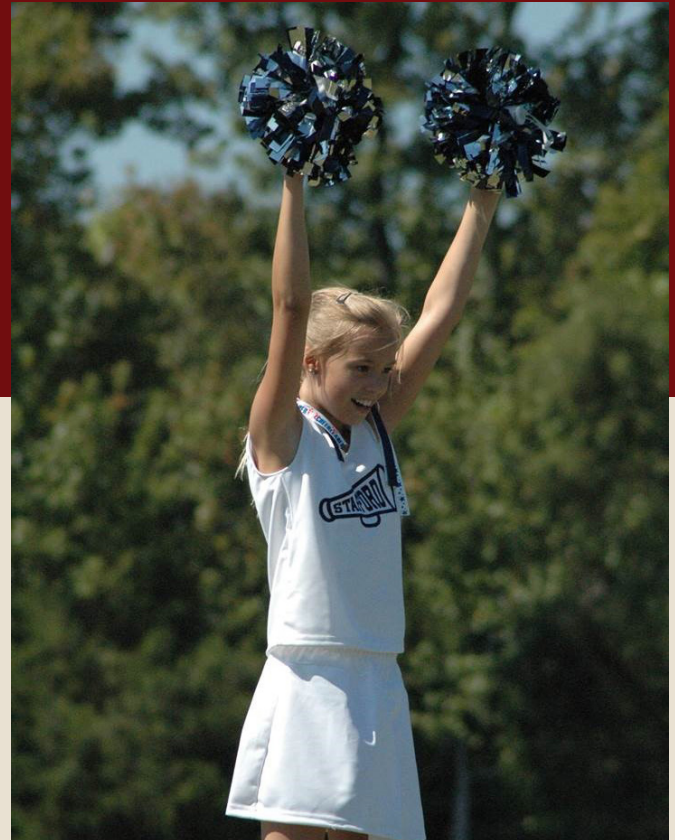
The sponsor that has its name incorporated into the name of the sponsored property.

Venue Marketing

Promotional strategy linking a sponsor to a physical site (sponsorship of stadiums, arenas, auditoriums, amphitheaters, racetracks, fairgrounds, etc.)

Web Sponsorship

The purchase (in cash or trade) of the right to utilize the commercial potential associated with a site on the World Wide Web, including integrated relationship building and branding.



**Stafford County, Virginia
Parks, Recreation, and Community Facilities Department**

**Parks Utilization Plan (Phase 1 – Athletic Fields)
Final Report**

May, 2014



Acknowledgement Page

Stafford County Board of Supervisors
Stafford Parks & Recreation Commission
Stafford County Administration
Stafford Parks, Recreation & Community Facilities
Stafford Area Soccer Association
Stafford Baseball League
Stafford Lacrosse Association
Stafford County Public Schools



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I. Executive Summary

A. Introduction

This plan is phase one of a three part process that will determine Stafford County's park and recreation needs over the next 5-10 years. It will also be a critical component of the capital improvement budget process for 2015 and beyond. Stafford County has a strong commitment to providing the highest quality services that the community and visitors have come to expect.

B. Community/Staff Input

For this plan, it was important to engage public athletic field user groups and County staff with sufficient and meaningful knowledge that would allow for frank and open discussions about the current state and the future of parks, athletic fields, and related amenities. The process that was undertaken to gain valuable insight into the needs and desires of the community included the distribution of a questionnaire to user groups, as well as face-to-face meetings with those groups that utilize the athletic fields of Stafford County for programming. These groups provide a tremendous service to the community by offering opportunities to participate in organized recreational or competitive sports for ages ranging from 5 to 19 years of age. Additionally, the County offers both youth and adult organized sports programming. The consultant team met with the following user groups:

- Stafford Baseball/Softball Association
- Stafford Soccer Association
- Stafford Lacrosse Association
- PRCF (Youth Football, Adult Softball)

Stafford County Public Schools was also engaged in conversation to understand their opinion on the use of schools fields for the user groups listed above.

C. Demographic Profile

Understanding community demographics and needs is an important component of an athletic field assessment for Stafford County. The demographic information will outline potential impacts on athletic field demand based on projected demographic changes. Although future population growth cannot be predicted with certainty, it is helpful to make assumptions about it for planning purposes. **Table 1** contains actual population figures based on the 2010 U.S. Census for Stafford County and ESRI's estimated population for 2012 and projected population for 2017 and 2022.

Table 1: Stafford County Current and Projected Population

US Census (2000 and 2010), ESRI, and County Projections		
2000 Population	92,446	US Census
2010 Population	128,961	US Census
2012 Estimated	130,703	ESRI
2014 Estimated*	135,000	Stafford County Projection*
2017 Projected	138,325	ESRI
2022 Projected	145,794	Based on Same Growth from 2012 to 2017

**2014 Population estimate provided by Stafford County.*

D. Inventory Overview

The Stafford Parks and Recreation Department currently programs both County-owned fields and Stafford County Public Schools athletic fields. The athletic fields are categorized into two areas – diamond fields (suitable for baseball and softball) and rectangle fields (suitable for soccer, football, lacrosse, rugby, etc.). There are a total of 23 park and 22 school diamond fields and 28 park and 22 rectangle fields programmed by the County. Combined, these fields account for approximately 18,000 hours of community athletic field access. Note: This inventory includes planned and funded diamond fields for Chichester Park and rectangle fields at Embrey Mill Park.

E. User Group Summary

Stafford County athletic fields (both park and school) provide team activities to 7,500 youth participant slots and 1,500 adult participant slots annually. Youth soccer has the largest participation levels and is also allocated the most rectangle field hours. Youth lacrosse receives the lowest rectangle field allocation per team. Youth baseball/softball has the largest participation for diamond sports and receives the largest allocation of diamond field hours. Adult softball receives the lowest field allocation per team.

F. Maintenance Budget Summary

The projected 2014 athletic field maintenance budget is \$1,321,675. Approximately 53% (\$695,000) of the County's athletic field maintenance budget will go toward maintaining SCPS athletic fields. At this time, SCSD athletic fields account for approximately 36 percent of all athletic fields usage programmed by the County's PRCF Department.

G. General Recommendations – Improving What Exists

Goal 1: Give Current Field Inventory Improvements/Access First Consideration

- **Objective 1.1:** Focus general field improvements on facilities that will maximize usage and user experience.
- **Objective 1.2:** Ensure that athletic field maintenance budget is maximized in order to provide the highest quality results.
- **Objective 1.3:** Strengthen field use agreement with Stafford County Schools.
- **Objective 1.4:** Engage athletic field user groups in field improvements and planning processes.

Future Athletic Field Needs – What's The Standard?

There is no set industry standard as to the number of fields a community should have based on population. In reality, each community creates its own standard bases on demand, demographics, and other factors. As the population of the County continues to grow, and more specifically the population of youth aged 5 to 19 years old, existing fields will need to be improved and/or repurposed, or new athletic fields will be need to be added to the existing inventory. Potential opportunities are summarized in the following goals.

Goal 2: Improve Conditions and Access to Diamond Fields

- **Objectives (Multiple)**
 - Opportunities Include: Autumn Ridge Park, H.H. Poole M.S., Mountain View property, Patawomeck Park, Duff McDuff Park, Rocky Pen Run, Fredericksburg Inactive Landfill Site, County-owned available vacant lands.

Goal 3: Improve Conditions and Access to Rectangle Fields

- **Objectives (Multiple)**
 - Opportunities include: Carl Lewis Park, Patawomeck Park, Vista Woods Park/Garrisonville E.S., Mountain View property, Autumn Ridge/H.H. Poole M.S., Willowmere Park, Duff McDuff Park, John L. Pratt Park, Curtis Memorial Park, County-owned vacant lands.

Goal 4: Improve Conditions and Access to Practice Fields

- **Objective 4.1:** Determine opportunities to add practice fields when possible county wide.

Goal 5: Accommodate Emerging Sports

- **Objective 5.1:** Improve field access for emerging sports (i.e. lacrosse, field hockey, etc.) and adult sports (i.e. softball).

Goal 6: Plan for the long term

- **Objective 6.1:** Identify athletic field needs based on population growth.

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II. Planning Context

A. Purpose of This Plan

The purpose of the Stafford County Parks Utilization Plan (Phase 1 – Athletic Fields) is to create a guiding document to provide a framework for planning improvements, acquisition, development, and administration of athletic fields for the next 5-10 years. This Plan will create a comprehensive and much needed quantitative and qualitative inventory of all Stafford County and Stafford County Public Schools athletic fields; will analyze current and forecast needs; will make recommendations; and will provide an implementation strategy for Stafford County.

B. Stafford County Context

This plan is phase one of a three part process that will determine the County's park and recreation needs over the next 5-10 years and will also be a critical component of the capital improvement budget process for in 2015 and in following years. With five new baseball/softball fields becoming available at Chichester Park in 2014, and six new rectangle fields opening at Embrey Mill Park in 2015, the County continues its commitment to providing the highest quality services that the community and visitors have come to expect.

C. Related Planning Efforts and County Information

This plan will be utilized in conjunction with several existing planning documents for Stafford County and the surrounding area. Where appropriate, this plan and other County information provides a connection to planning efforts which include, but are not limited to:

- Chichester Park Master Plan
- Embrey Mill Park Master Plan
- 2014 & 2015 (proposed) Parks Maintenance Budgets
- 2013 – Field Usage Reports

D. Methodology of this Planning Process

This project was led by the Parks and Recreation Department Director and key staff within the Department. An extensive public input process was a key component of the project. The County's project team met with a team of consultants from GreenPlay LLC and Design Concepts to provide input throughout the planning process. This collaborative effort created a plan that not only fully utilized the consultants' knowledge but also relied on significant input from a fully engaged staff, which in turn will allow them to effectively implement the plan. The project included the following tasks.

- Needs Assessment and Public Involvement:
 - Review of previous planning efforts.
 - Consideration of the profile of the community and demographics, including anticipated population growth.
 - Extensive community involvement effort including focus groups; meetings with key stakeholders, county staff, and school district staff.
 - Research of trends and statistics related to athletic fields to help guide the efforts of programming staff.
- Assessment and Analysis:
 - Creation of a comprehensive inventory and assessment of the condition of amenities of the County and School District athletic field facilities using existing mapping, staff interviews, and on-site visits.
 - Interviews with department staff to better understand information about athletic field facilities and services and to gain insight into the current practices and experiences of the County in serving its residents and visitors.
 - Maintenance budget analysis addressing athletic field facilities, and related services.
 - Measurement of the current delivery of service using the GRASP® (Geo-Referenced Amenities Standards Program) Level of Service Analysis, allowing for a target level of service to be determined that is both feasible and aligned with the desires of citizens, as expressed through the citizen input process. This analysis is also represented graphically with maps.
 - Exploration of capital improvement costs to support development and sustainability of the system based on the level of service analysis.
- Recommendations and Implementation Strategies:
 - Identification and categorization of recommendations into goals and objectives for implementation.
 - Development of an action plan for recommendations and capital improvements to support the implementation of the plan.

E. Project Timeline

• Start-up	December – 2013
• Needs Assessment/Public Involvement	December – 2013
• Inventory and Assessment of Existing Facilities	December – 2013
• Utilization Analysis	January – February 2014
• Maintenance Budget Analysis	January – February 2014
• Findings Presentation	February 2014
• Draft Recommendations	February 2014
• Draft Plan	March 2014
• Adoption of Plan	June 2014

III. Our Community and Identified Needs

For this plan, it was important to engage public athletic field user groups with sufficient and meaningful knowledge that would allow for frank and open discussions about the current state and the future of parks, athletic fields, and related amenities. The process that was undertaken to gain valuable insight into the needs and desires of the community included the distribution of a questionnaire to user groups, as well as face-to-face meetings with those groups that utilize the athletic fields of Stafford County for programming. Participants were also given the opportunity to prioritize their desires in a “Dotocracy” exercise. The results of that exercise are summarized below.

The focus groups had a total of 14 participants representing soccer, football, baseball, and lacrosse, as well as County staff responsible for adult softball and football. Representatives from the Parks Commission and the Board of Education, as well as senior department staff, were also present in the sessions.

The following is an overview of the Stafford County youth sports community’s opinions with regard to strengths, weaknesses, and opportunities for athletic fields.

A. Community And Stakeholder Input

Focus group, stakeholder, and public meeting participants were asked a variety of questions about the parks and athletic fields in Stafford County. Their responses to the questions about current conditions and issues/needs/problems and areas that the department can address are in the boxes that follow.

Issues, needs, problems, and comments heard consistently at all the meetings

- Need consistent access to school fields
- Recreation and Parks staff are very responsive
- Traffic concerns force later activity start times
- Lack of adequate parking and traffic flow within the park sites
- Poor turf conditions:
 - Excessive wear
 - Drainage issues
- Additional fields are needed to allow rotation/rest of existing fields
- The issue is not the number of fields, it’s the quality of the existing fields and the location of the fields
- Access and ADA issues at many locations
- Synthetic surface fields would allow for more use in a greater range of weather conditions
- Maintenance storage facilities lacking

Questions asked of the focus group participants during face-to-face meetings were:

- What are the elements of a quality athletic field?
- What are your biggest obstacles in gaining access to athletic fields?
- Are there any underserved populations with regard to athletic field access (i.e. geographically, demographically, activity interest, etc.)?
- What improvements/changes would you make regarding athletic fields or related programs in Stafford County today?
 - In 5 Years
 - In 10 Years
- How can Stafford County responsibly address these improvements/changes given its resources? What opportunities exist?
- How can the user groups assist in addressing the improvements?
- Are there any potential new partnerships that the County should consider in the future?

Those responses are summarized in (but not limited to) the boxes below:

What are the elements of a quality athletic field?

Quality playing field includes:

- Turf conditions appropriate to the activity
- Proper drainage
- Field lights
- Irrigation on natural turf fields
- Fencing, goals, and backstops
- Full-sized practice fields

Site amenities

- Sufficient parking/traffic flow
- Parking lot and safety lights
- Restrooms (plumbed preferred)
- Water fountains
- Concessions
- Covered dugouts
- Drop-off areas
- Electrical power

What are your biggest obstacles in gaining access to athletic fields?

- School access – high schools have very limited, and middle school increasingly so
- Inconsistent application of permitting process by schools
- Some scheduling/access favoritism perceived
- Highway traffic
- Inadequate on-site parking
- Park fields not located in population centers
- Parking

What improvements/changes would you make with regard to athletic fields or related programs in Stafford County today?

- Improve school site contracting process
- Create new agreement
- Increased maintenance budgets
- Additional bond measures

In 5 Years to 10 years

- Rehabilitate Middle School fields
- Create sport-specific complexes
- Work with developers to set aside land and develop fields in proximity to population centers
- Promote tournaments for economic opportunities
- Create indoor training space

Are there any underserved populations with regard to athletic field access (i.e. geographically, demographically, activity interest, etc.)?

- Adult sports
- New and emerging sports
- Pickup/drop-in opportunities
- State and/or regional tournaments

How can the user groups assist in addressing the improvements?

- Increased volunteer efforts
- Financial support
- Agree to field closures
- Cooperate with other user groups regarding field access
- Support Recreation and Parks in this effort

Priority Setting by “Dotocracy”

Dotocracy is a technique whereby participants are able to prioritize their desires via a process of voting by placing dots next to items identified during the discussion portion of a public process. Each participant is given a total of nine “dots” with which to vote on the items they determine to be most the important improvements or additions. Through this process, the consensus of the group can be determined and prioritized.

In this project, three Dotocracy surveys were established: 1) General Athletic Field Site Components, 2) Rectangular Multi-purpose Fields, and 3) Baseball/Softball Fields. The following represents a prioritized ranking of the voting and the number of votes for each item:

Baseball/Softball Fields

1. Lights – 23
2. Field Condition (turf quality, slope, etc.) – 19
3. Field size (age and activity appropriate) – 13
4. Bleachers – 6
5. Scoreboard – 4
6. (tie) Irrigation – 3
6. (tie) Practice fields – 3
6. (tie) Dugouts – 3
9. Warm-up area – 2
10. (tie) Outfield fencing – 1
10. (tie) ADA Access – 1

Multi-purpose Fields

1. Lights – 22
2. Practice Fields – 18
3. Field Condition (turf quality, slope, etc.) – 16
4. Field size (age and activity appropriate) – 10
5. Bleachers – 8
6. Warm-up area – 1

General Athletic Field Components:

1. Parking – 21
2. Restrooms – 13
3. Playground – 11
4. (tie) Storage – 4
4. (tie) Water Fountains – 4
6. Shelter/Shade Structure – 3
7. Concession Stand – 2

B. User Group Summary

Participants in the focus groups primarily consisted of members of user groups currently holding field contracts to school and park facilities. Additionally, department staff responsible for adult coed softball and football were present to represent those activities. There were several common themes voiced by all user groups in attendance.

Everyone expressed appreciation for the efforts and responsiveness of the park maintenance personnel. The user groups expressed a desire for quality over quantity. Their current needs appear to be met with the existing inventory; however, the amount of activity taking place on existing fields results in overuse and a reduction in the quality of the playing surfaces. The amount of scheduled activity on natural turf fields, at times, exceeds carrying capacity causing less than optimal playing surfaces.

Another overriding concern was consistent access to school fields. The ability to access fields is perceived to be under the control of school principals. A perception of favoritism and allowing field use by some principals exists among the user groups. The use of school fields is desired because of their distribution throughout the county.

The desire for more evenly distributed field space is related to the difficulty of travel due to heavy traffic patterns in the county. This condition also relates to an increased desire for field lighting due to the fact that practices often cannot start before it gets dark, especially during the limited daylight hours of March and April and September and October.

The primary concerns presented related to conditions within the parks were centered on the lack of adequate parking for scheduled activities and turf conditions impacted by excessive wear, and in some cases, poor drainage. Related to the parking situation is traffic flow within the parks with users requesting a more circular flow of traffic with drop-off points to better access the fields. Other amenities such as plumbed restroom facilities, shade, drinking water, electrical power, and safety lighting in parking areas were cited as desired. There is a need for improved storage areas throughout the park system for equipment and materials to provide a safer, cleaner environment; improve the appearance of facilities; and provide better care of the equipment.

It should be noted that, other than lacrosse, there were no representatives of new or emerging sports and activities. Staff mentioned loosely organized adult sports such as ultimate Frisbee, soccer, and flag football that often seek out unused field space and play unsanctioned games. Youth sports such as lacrosse and field hockey find it difficult to gain a foothold in the existing field permitting structure.

C. Stafford County Public School Input

Since Stafford County Public Schools (SCPS) provides almost half of all fields utilized by community groups, it was important to engage them in the conversation. The SCPS Facilities Department provided us with the following information.

- Stafford County Public Schools has a good working relationship with the Parks and Recreation Department, and the lines of communication are open between the two organizations.
- Stafford County Public Schools has its own mission, and the fields exist to support that mission.
- SCPS has no desire to get involved with managing the access and scheduling of school fields by community groups. The philosophy of the SCPS is that it is a part of the community (and some would say the foundation of the community), and is integrated into the fiber of life in Stafford County. SCPS desires to be a part of the community by providing access to fields, while adhering to its mission. The 2006 agreement between schools in the county recreation parks department outlines the responsibilities.
- SCPS facility personnel administers the schools responsibilities of that agreement. Each principal has approval of activities that take place at their school. A negative response to a request must have a good reason. SCPS facility personnel have final authority on granting field access.
- Generally speaking, all fields at elementary schools are available for community use. Middle schools are largely available with the exception of stadium fields in which the schools have invested significant amounts of money to install and maintain Bermuda grass. It is the school's desire to convert additional middle school fields to the upgraded Bermuda turf in the future. These fields cannot be used for community practice and are generally available only on a rotating basis for game events.
- High school fields are not available for community use, with the exception of softball fields and certain baseball fields in the fall, and rare championship events at high school rectangular fields. The demand for, and the use of, the high school fields by interscholastic teams is too great to allow for ongoing community use. Exceptions to this may include championship games and other special events. The schools will be converting two rectangular fields at high schools to synthetic surface in the next year.
- There is desire on the school's part, as there is from recreation and parks, to revisit the use agreement between the agencies. Items to be discussed include access to fields and facilities, process for gaining access, and fees.

IV. Stafford County Demographic Trends

Understanding community demographics and needs is an important component of an athletic field assessment for Stafford County. The following information will outline potential impacts on athletic field demand based on projected demographic changes. The population data used in this demographic profile comes from ESRI Business Information Solutions, based on the 2000 and 2010 U.S. Census data.

A. Summary

Key demographic trends to reference for athletic field assessment efforts in Stafford County are summarized below.

- The Stafford County population grew significantly from 92,446 in 1990 to 128,961 in 2010 and is predicted to continue moderate growth, reaching 138,325 by 2017. This continued growth may necessitate the development of new athletic fields to meet demand.
- The median age for the County in 2012 was 34.7, significantly lower than the median age (37.3) for the United States, and the largest age groups are those aged 0 to 19 and 35 to 54. The median age is only expected to increase slightly by 2017 (35.0). This means that overall percentage of youth ages 5 to 19 will remain close to the same as well.

B. Stafford County Population and Demographic Trends

Population Projections

Although future population growth cannot be predicted with certainty, it is helpful to make assumptions about it for planning purposes. **Table 2** contains actual population figures based on the 2010 U.S. Census for Stafford County and ESRI's estimated population for 2012 and projected population for 2017 and 2022. The annual growth rate from 2000 through 2010 was 3.39 percent. ESRI's projected growth rate for 2012 through 2017 is around 1.14 percent for Stafford County. These numbers are perceived to be somewhat conservative by staff members.

These projections are perceived to be somewhat conservative by Stafford County staff members. Currently the County is working on the assumption that the 2014 population* of Stafford County is 135,000.

Table 2: Stafford County Population Projections

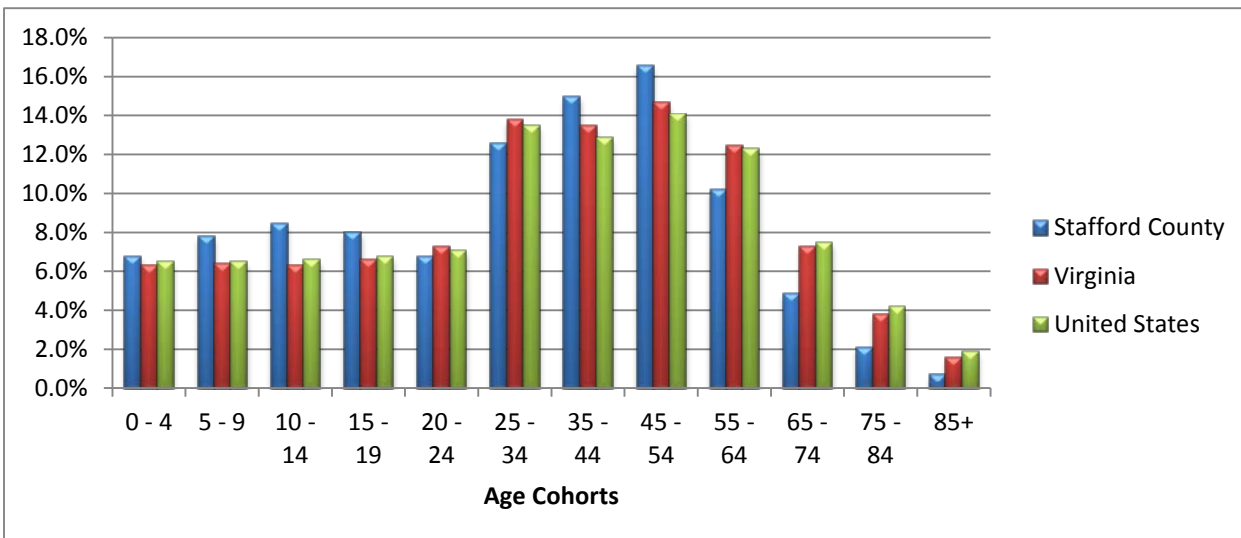
US Census (2000 and 2010), ESRI, and County Projections		
2000 Population	92,446	US Census
2010 Population	128,961	US Census
2012 Estimated	130,703	ESRI
2014 Estimated*	135,000	Stafford County Projection*
2017 Projected	138,325	ESRI
2022 Projected	145,794	Based on Same Growth from 2012 to 2017

Source: 2010 Census and ESRI Business Information Solutions 2012 Demographic and Income Profile.

Population Age Distribution

As part of the population trend analysis for Stafford County, it is useful to compare the county's age distribution and income distribution to that of the State of Virginia and the United States. As illustrated in **Figure 1**, the age distribution within Stafford County favors those between the ages of 0 – 19 and 35 – 54 (about 31% in each cohort) in comparison with Virginia and the entire United States (27% to 28% each). Additionally, the chart shows that Stafford County has a lower percentage older adults (ages 55 – 85+) (18%) in comparison with the overall population of Virginia and the United States (about 25% each).

Figure 1: 2012 Age Distribution for Stafford County, Virginia, and United States Populations



Source: ESRI Business Information Solutions 2012 estimate based on the 2010 U.S. Census.

Household Size and Income Distribution

In 2010, the average household size for Stafford County was 3.0, somewhat larger than the average household size of 2.54 for the State of Virginia. Eighty-four percent (84%) of Stafford County households had two or more people, and 46.2 percent of these households included children.

- The median household income for Stafford County was \$66,036 in the 2000 Census, and it was \$87,476 in 2012, according to ESRI estimates. ESRI projects that the median income will be \$95,927 in 2017. These figures are higher than those projected for the State of Virginia (\$58,369 in 2012 and \$67,395 in 2017) and the United States (\$50,157 in 2012 and \$56,895 in 2017).
- In 2012, the highest percent of the population in Stafford County (25.1%) earned between \$100,000 and \$149,999 per year; households in this income range are predicted to increase to 26.8 percent by 2017.
- The next highest percent (17.5%) of households earned incomes in the \$50,000 – \$74,999 range in 2012, followed by 14.4 percent in the \$75,000 – \$99,999 range.

Race/Ethnicity

Comparing the ethnic population breakdown for Stafford County, Virginia, and the United States reveals the following:

- Stafford County and the United States have comparable Caucasian population percentages, at close to 72%, while Virginia's Caucasian population is slightly lower at 68%.
- Stafford County and Virginia have higher African American populations (17.4% and 19.4%, respectively) than the United States (12.6%)
- Of the three jurisdictions, Stafford County has the greatest Asian population percentage at 4.0%, but its Hispanic population percentage (9.7%) is less than that of the United States (16.9%).

C. Stafford County 5 to 19-year-old Population

It has been identified that 85 percent of athletic field users are between the ages of 5 and 19 years old. Currently, this demographic represents approximately 24 percent of the population and is broken down further below.

- Ages 5 – 9 (7.8% of the County population)
- Ages 10 – 14 (8.5% of the County population)
- Ages 15 – 19 (8.0% of the County population)

The bulk of the analysis outline in this report focuses on this age group and how the athletic fields can be improved to meet their needs.

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V. Maintenance Budget Findings

In order to examine the utilization of fiscal resources, it was necessary to analyze the Stafford County parks maintenance budget. To establish a basis for comparison, the project team determined the cost to maintain a “field acre” for playing fields. The scheduled use of the fields was also examined to understand the effectiveness of resource allocation procedures.

A field acre is the playing surface of a playing field – either a baseball diamond or a rectangular surface for soccer, football, lacrosse as well as the surrounding “common area.” These acreages were established as follows:

- 2.5 acres for diamonds
- 1.5 acres for rectangular fields

Why Field Acres?

It is unrealistic to view field maintenance as only occurring within the playing surface of the field. The surrounding “common area” must also be maintained.

Diamonds range in size from about 1.75 acres for youth and some softball teams to approximately 3.5 acres for 90' base path baseball fields. There are many more youth/softball diamonds than regulation baseball diamonds. Therefore, an average of 2.5 acres per field would skew toward smaller diamonds, while leaving some room in the calculation for common areas.

For rectangular fields, a football field is approximately 1.3 acres; therefore, adding a little more acreage would account for maintaining the area around the field (common area) as well. From a site-specific basis this analysis is imprecise, but it serves as an overall benchmark when looking at the system as a whole.

Operating Budget Assumptions:

The budget analysis is based on the Fiscal Year 14 adjusted budget with the following assumptions:

- Half of the budget is for athletic field maintenance; the basis has been reduced by 50 percent.
- The cost of synthetic field maintenance is reduced by 50 percent due to the fact that they require less intense maintenance.

Additional planned and funded athletic fields will come into the system in FY15 that include:

- Chichester – 5 diamonds
- Embrey Mill – 6 rectangular (may increase based on construction bid prices)

Additional funding for FY 15 has been requested and includes costs for maintaining additional fields as well as enhanced per acre funding to address turf conditions, irrigation, and drainage system-wide.

Budget Summary:

FY 14

Total athletic field budget	\$1,321,675 (53% of budget is spent on school fields)
Park field acres	102
School field acres	113
Total Acres	215
Cost per Field Acre FY14*	\$6,113

FY 15

Total athletic field budget	\$1,828,595 (with proposed additional funding request)
Park field acres (21 new field acres)	123
School field acres	113
Cost per Field Acre FY15 (proposed)*	\$7,732

**Note: Consultant experience and knowledge identify that the average maintenance cost nationally per acre range from \$5,000 to \$8,000 annually depending on location in the country, i.e. costs are higher in southern areas of the U.S. than northern areas due to length of growing season. Labor rates, operation budgets, and commitment to athletic fields also have an impact on maintenance costs.*

Maintenance Budget Allocation

In 2013, County-owned athletic fields accounted for 63.5 percent, and school athletic fields accounted for 36.5 percent of total field time, as shown in **Table 3**.

Table 3: Athletic Field Usage Table

2013 Summary - Athletic Field Usage Hrs						
	Q1	Q2	Q3	Q4	Total	%
Schools	586	3,290	1,041	1,656	6,573	36.50%
County	1,163	5,222	2,179	2,872	11,436	63.50%
Total	1,749	8,511	3,220	4,528	18,008	100%

Bases on the information in **Table 3** the following findings have been determined:

- Fifty-three percent (53%) of the Stafford County Athletic Field Maintenance Budget goes to maintain school athletic fields which only provide 36.5 percent of field access.
- The estimated county field maintenance cost is **\$54.70** per hour of use.
- The estimated school fields maintenance cost is **\$105.91** per hour of use. **(Transporting equipment and maintenance staff to school properties is a significant contributor to the higher cost per hour of use.)**

Athletic Fields Use Distribution

The maintenance department strives to provide an equitable level of maintenance to all fields that are programmed by the County. The tables below show how athletic field use (hours) were distributed in 2013. The information shows that some of the fields have a low level of use (less than 50 hours), yet the level of maintenance i.e. frequency of mowing, etc. is the same as fields receiving a higher level of use. The County should investigate if there is a need to continue to program low use fields and shift use and maintenance needs to higher use fields.

PARKS		SCHOOLS	
		Moncure E.S.	0
Carl Lewis Community Center	0	Rocky Run E.S.	0
River Road Park	63.5	Mountain View H.S.	3
Vista Woods Field	90	Brooke Point H. S.	15
Courthouse Community Center	157	Heim M.S.	16
Autumn Ridge Park	194	North Stafford H.S.	28
Curtis Memorial Park	325	Winding Creek E.S.	38
Rowser Complex	392	Colonial Forge H.S.	59
Patawomeck Park	919.5	Rock Hill E.S.	60
John Lee Pratt Mem. Park	1003.5	Dixon-Smith M.S.	80
St. Clair Brooks Mem. Park	1398.5	Stafford M.S.	87
Duff McDuff Green Mem. Park	1960.5	Hartwood E.S.	88
Willowmere Park	2229	Falmouth E.S.	101
Smith Lake Park	2703	Grafton Village E.S.	110
		Conway E.S.	158
		Anthony Burns E.S.	167
		Widewater E.S.	172
		Drew M.S.	184
		Kate Waller Barrett E.S.	202
		Garrisonville E.S.	239
		Hampton Oaks E.S.	259
		Gayle M.S.	290
		Ferry Farm E.S.	342
		Margaret Brent E.S.	345
		Stafford E.S.	363
		Park Ridge E.S.	419
		Melcher Center	461
		A.G. Wright M.S.	639
		H.H. Poole M.S.	757
		Rodney E. Thompson M.S.	892

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V. General Recommendations to Increase Athletic Field Access and User Experience

There is a growing trend in the United States in which community leaders recognize that public recreation facilities and related “Quality of Life” amenities are not secondary services provided by governmental agencies but are in fact integral to creating communities where people want to live and visit. These services should be seen as investments in the long-term vitality and economic sustainability of any vibrant and attractive community. Stafford County recognizes these factors and seeks to continue to make improvements to its athletic field and enhancing the community for years to come.

All of Goals, Objectives, and Action Steps in this report are outlined to create a process for focus and implementation. Over the next five to ten years and beyond, many influences will have an impact on the success of this plan. Funding availability, staff buy-in, and political and community support will play significant roles in the implementation process. Timing for Actions steps are identified by the following:

- **Ongoing** – Action is already taking place and should continue.
- **Immediate priority** – Some action should be taken within the next year.
- **Short-Term priority** – Some action should be taken within the next one to two years.
- **Mid-Term priority** – Some action should be taken within the next three to five years.
- **Long-Term priority** – Some action should be taken within five years or beyond.

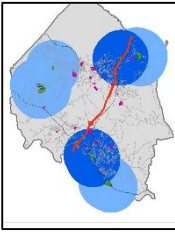
The following Goals, Objectives, and Action Steps focus on improvement to exiting fields, partnerships, maintenance practices, and user group collaboration. Each actionable item has a corresponding CIP component. However, due to the complexity of understanding full financial impact, CIP costs are undeterminable without further study.

Goal 1: Give Current Field Inventory Improvements/Access First Consideration

Objective 1.1: Focus general field improvements on facilities that will maximize usage and user experience.

Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
1.1.a: Improve field conditions (i.e. drainage, irrigation) - Continue to monitor infield drainage issues and develop a plan to upgrade/address them. - Investigate irrigation pressure improvement at Duff Mc Duff. - Include irrigation systems installments/improvements in future CIP budgeting. High use County fields should be given top priority.	Stafford County Parks, Recreation & Community Facilities Department	CIP Allocation – Will vary from site to site	Short to Long Term
1.1.b: Improve park amenities (i.e. restrooms, drinking water, shade, covered dugouts, etc.)	Stafford County Parks, Recreation & Community Facilities Department	CIP Allocation – Will vary from site to site	Short to Long Term
1.1.c: Investigate opportunities to improve parking and traffic flow: - Investigate opportunities to expand parking at high demand park athletic fields. - Review scheduling methodologies (games & practices) to improve traffic turnover and reduce traffic congestion. - Promote carpooling through guaranteed parking or other perks.	Stafford County Parks, Recreation & Community Facilities Department	CIP Allocation – Will vary from site to site	Short to Long Term

Objective 1.2: Make most effective use of athletic field maintenance budget in order to provide the highest quality results.

Actions	Primary Dept. Responsibility/Support	Resource Impact/Budget Requirement	Timeframe to Complete
1.2.a: Ensure that maintenance/manpower are allocated in a manner that is reflective of actual field use. - Determine if low use school fields (less than 50 hours/year) can be removed from inventory, and users moved elsewhere, so maintenance resources can be allocated to higher priorities. - Concentrate school maintenance dollars on school fields in areas shown to have a lower existing maintenance level of service. - As new fields come online (i.e. Chichester, Embrey Mill), determine if some school use can be reduced or eliminated and maintenance dollars shifted to county parks. <i>Note: As a general rule of thumb, one park field equals the same amount of usage of two school fields.</i>	Stafford County Parks, Recreation & Community Facilities Department	Staff Time	Ongoing
1.2.b: Strategically locate maintenance facilities to efficiently transport maintenance staff and equipment in the least amount of time and for the safety and protection of assets.  Maintenance facility locations should attempt to keep transportation distances to five miles or less.	Stafford County Parks, Recreation & Community Facilities Department	New Maintenance Facilities	Short to Long Term

• All maintenance facilities should be fenced for security and include indoor storage area, approx. 20' x 40'. • Centralized mechanical shop (not necessarily park associated). • Chichester Park and Embrey Mill Park should include on-site maintenance facilities (not currently funded). This would help fill the central county gap for maintenance facilities.			
Objective 1.3: Strengthen field use agreement with Stafford County Schools Note: The formal agreement with SCPS dates back to 2006.			
Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
1.3.a: Establish mutually agreed upon components of an agreement that includes: • A statement of the primary purpose of each party's facilities. • A designation of facilities available for use when not required by primary purpose. • A process to add or remove facilities from the available inventory. • Clearly defined lines of communication. • The establishment of a committee with representation from both the District and County to recommend rules and regulations, to monitor and evaluate the agreement and to confer and discuss problems during the term of the agreement. Review annually. • A dispute resolution process designating the final arbiter. • An understanding of costs incurred by both parties. • An establishment of fees and charges.	Stafford County Parks, Recreation & Community Facilities Department Stafford County Parks and Recreation Commission Stafford County Board of Supervisors Stafford County Public Schools Staff Stafford County School Board	Staff Time	Short-Term

• A process for the approval of/or removal of user installed improvements. • A process to establish required supervision, security, inspection, and notification. • Establishment of responsibility for repairs and/or reimbursement for damages.			
Objective 1.4: Engage athletic field user groups in field improvements and planning processes.			
Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
1.4.a: Work with athletic fields user groups to assist in developing priorities for field improvements.	Stafford County Parks, Recreation & Community Facilities Department Athletic Field User Groups	Staff Time	Short to Long Term
1.4.b: Hold annual “mandatory” athletic field user groups summits to discuss (but not limited to): • Volunteer supported needs • Financial supported needs • Field closures priorities • Scheduling improvements • User groups conflicts	Stafford County Parks, Recreation & Community Facilities Department Athletic Field User Groups	Staff Time	Ongoing
1.4.c Develop mutually agree upon concession strategies that benefit both the County and user groups.	Stafford County Parks, Recreation & Community Facilities Department Athletic Field User Groups	Staff Time	Short-Term

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VI. Inventory and Assessment

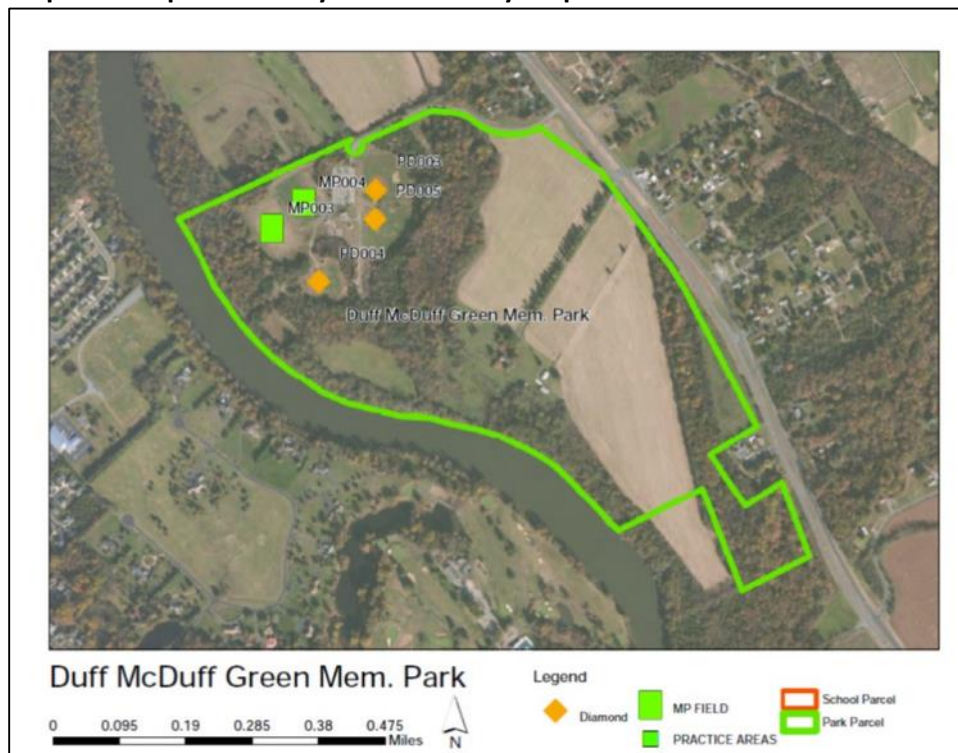
A. Overview of Current Inventory and Use

The Stafford Parks and Recreation Department currently programs both County-owned fields and Stafford County Public Schools athletic fields. The athletic fields are categorized into two areas – diamond fields (suitable for baseball and softball) and rectangle fields (suitable for soccer, football, lacrosse, rugby, etc.). There are a total of 23 park and 22 school diamond fields and 28 park and 22 rectangle fields programmed by the County. Combined, these fields account for approximately 18,000 hours of community athletic field access.

County Facilities and Their Associated Fields

Each of the County Park facilities and associated fields were identified and mapped in GIS. The following example (**Map A**) shows Duff McDuff Green Memorial Park. In this example, two rectangles and three diamonds have been identified as existing fields. The park boundary also indicates the future expansion possibilities at McDuff. All data is included in the GIS dataset and includes scoring to be discussed in following sections.

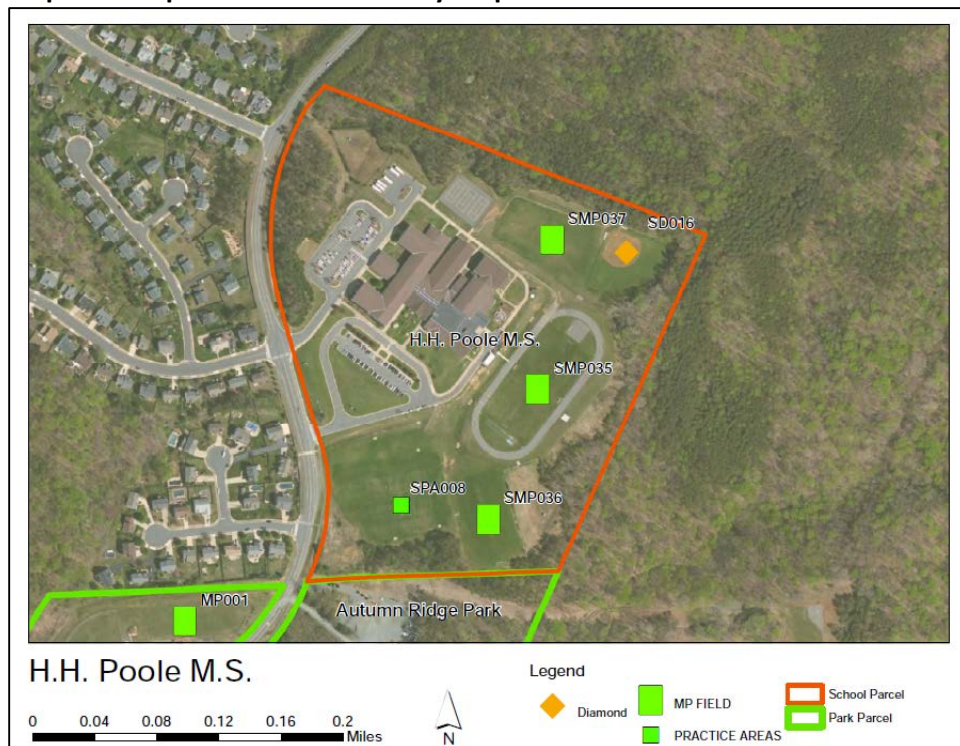
Map A: Example of County Park Inventory Map



Each School and its Associated Fields

In addition to County parks, schools within the County were also visited and assessed. Similar to parks, school fields, and diamonds that are currently programmed by Stafford County Parks were included in the mapping and assessment. **Map B** is an example of a school inventory map.

Map B: Example of School Inventory Map



Park and School facilities were assessed for both fields and related field amenities. While these amenities may not be directly associated with a specific field or the use of that field, they do contribute to the overall user experience for the field. Each category was scored based on a 0-3 scoring criteria with 3 being the highest score. Amenities include:

- Restrooms
- Parking
- Security Lighting
- Maintenance Storage
- Drinking Water
- Concessions
- Playgrounds

The theory behind this type of assessment is based on the idea that a field or diamond located in a park or school with adequate parking, adjacent restroom facility, availability of drinking water, etc. is more desirable and functional than the same field or diamond located in a park without these types of amenities.

Scores for each category were recorded in the GIS dataset and an excel spreadsheet. A complete list of the scoring criteria can be found in **Appendix A**.

Field Classification and Assessment

The scope of this study included the assessment of the following type of sport fields:

1. Diamonds
 - a. Typically used for baseball and/or softball teams for games and practice.
2. Rectangles
 - a. Rectangular shaped turf areas that can be used by a variety of athletic teams for soccer, football, lacrosse, rugby, field hockey, Ultimate Frisbee, etc.
 - b. Rectangles are often designed for multiple field layouts depending on programming needs. For example, a large multipurpose field may be used for a single high school age group soccer game or reconfigured for two to three younger age group games.
 - c. For the purposes of this study, the quantity of rectangles available for programming in large open turf areas such as at Pratt Park were estimated for their configuration into full size soccer fields.
3. Practice Areas
 - a. At the present time, the County offers no full size rectangles for practice. 90' x 90' areas of turf are designated by painted perimeter lines for practice areas. Availability and quantity of these practice areas appears to vary based on turf conditions and season of use. Therefore, quantity and quality of practice areas were not assessed during this study. The assessment simply noted the current, future, or past availability of practice areas at a specific site.

Rectangle Field Assessment

Each rectangle field was assessed based on a 0-3 scoring system for each of the following categories.

- Overall Field Condition
- Turf Condition
- Synthetic Turf Condition (if applicable)
- Irrigation (if applicable)
- Field Lighting
- Bleachers
- Team Storage
- Goals (Soccer, Lacrosse, Rugby/Football)

Scores for each category were recorded in the GIS dataset and an excel spreadsheet.

A complete list of the scoring criteria can be found in **Appendix A**.

Diamond Field Assessment

Each diamond was also assessed based on a 0-3 scoring system for each of the following categories.

- Overall Field Condition
- Turf Condition
- Synthetic Turf Condition (if applicable)
- Irrigation (if applicable)
- Field Lighting
- Bleachers
- Team Storage
- Scoreboard
- Press Box or Electricity Availability
- Infield Condition
- Backstop
- Dugouts
- Field Fencing
- Warm Up Area/Batting Cages

Scores for each category were recorded in the GIS dataset and an excel spreadsheet. A complete list of the scoring criteria can be found in **Appendix A**.

After the data was compiled in both the GIS and Excel dataset, the scoring was reviewed and vetted with staff. Edits and adjustments were made to ensure consistency across the system.

Field Ranking Formula

The modified field scoring takes into account that the exact same condition of field is more desirable and arguably more useable at a park with a greater number of amenities. The following formula was proposed and approved by staff for the purposes of ranking individual park and school fields and diamonds in the current system.

Note: The examples presented below represent the process used for rectangles fields. Diamond field ranking values were determined using a similar process but incorporated criteria specific to diamonds (Sum field conditions x Park Modifier) x Premium for Synthetic Turf or Lights.

Each element in the formula consists of the following components:

The Field Ranking Formula establishes an Ordinal Scale and allows for the fields to be ranked in order of value, although the rankings do not imply the degree of difference in value between fields. The rankings can be used to determine the relative position of a field on the scale of values, i.e. in the top half or bottom half, top three, etc. However, being in the top half, for example, does not imply that a field is twice as good as one lower on the value scale.

Sum of Field Conditions

- Overall Field Condition
- Turf Condition
- Synthetic Turf Condition (if applicable)
- Irrigation (if applicable)
- Field Lighting
- Bleachers
- Team Storage
- Goals (Soccer, Lacrosse, Rugby/Football)

Park Modifier

- Restrooms
- Parking
- Security Lighting
- Maintenance Storage
- Drinking Water
- Concessions
- Playgrounds

Premium for Synthetic Turf or Lights

Synthetic turf or lights ultimately increase the overall hours that a field can be programmed or used and therefore served as the significant modifier (premium) for field scores.

- Synthetic Turf (x2)
- Lighted Diamond (x1.5)

Sum of Field Condition Criteria

The example in **Table 4** shows the sum of the field condition criteria. In the following example, field EX02 is discounted 50 percent, because the field is located at a local school and provides limited access to programming by Stafford Parks.

Table 4: Example Sum of Field Condition Calculation

Map ID	Type	Use/Access Percent TBD	Overall Field Condition	Turf	Synthetic Turf Condition (if applicable)	Irrigation (if applicable)	Lighting	Bleachers	Team Storage	Scoreboard	Goals	Issues with Field Runout (Width or Depth)	Sum of Field Scoring * Access Percentage
EX01	MP FIELD	100%	2	1		2							5
EX02	MP FIELD	50%	2	1		2							2.5

All fields in the inventory were scored based on the sum of all field criteria and then multiplied by the access percentage.

Park Modifier

Table 5 shows a sample calculation of the park modifier. In the example, the two parks not only have differences in the number of associated amenities, but also in the quality of those amenities. Thus, the sum of all park amenities for Park A is 4, while the sum of amenities is in Park B is 9. The developed formula multiplies the sum of each park's amenities by 0.1 and adds 1 to get a multiplier of 1.4 and 1.9 for each park respectively.

Table 5: Example Park Modifier Calculation

Park Name	Restroom	Parking	Security Lighting	Maintenance Storage	Drinking Water	Concession	Playground	Sum of All Amenities Scores	Park Modifier
Park A	1	1					2	4	1.4
Park B	2	2	2	1			2	9	1.9

Modified Score

Table 6 demonstrates how the Park Modifier is used to elevate the score of the same quality of field at parks with differing amenities. In the example, Field EX01 has a sum of all field condition criteria equal to 5.

Table 6: Example Modified Field Scoring

Map ID	Type	Use/Access Percent TBD	Overall Field Condition	Turf	Synthetic Turf Condition (if applicable)	Irrigation (if applicable)	Lighting	Bleachers	Team Storage	Scoreboard	Goals	Issues with Field Runout (Width or)	Sum of Field Scoring * Access Percentage
EX01	MP FIELD	100%	2	1		2							5

Park A has park amenities that equate to a Park Modifier of 1.4 vs a 1.9 modifier at Park B. The final column in the **Table 7** indicates the modified rectangle score. In this example, EX01 at Park B ranks higher than the same field at Park A with a score of 9.5 compared to 7.

Table 7: Example Modified Field Scoring Comparison

Park Name	Restroom	Parking	Security Lighting	Maintenance Storage	Drinking Water	Concession	Playground	Sum of All Amenities Scores	Park Modifier
Park A	1	1					2	4	1.4
Park B	2	2	2	1			2	9	1.9

Park Location	Map ID	Type	Sum of Field Scoring * Access Percentage	Park Modifier	Rectangle Score * Park Amenities Modifier
Park A	EX01	MP FIELD	5	1.4	7
Park B	EX01	MP FIELD	5	1.9	9.5

Premium for Synthetic Rectangle or Diamond Lighting

Consultant experience and knowledge, combined with feedback from Stafford County field user groups, identified the presence of synthetic turf on rectangle fields and field lighting on diamond fields as conditions which greatly affect the playability and amount of time that respective fields can be used or programmed. Therefore, for the purposes of this study, the presence of synthetic turf or field lights were selected as premium modifiers. The example in **Table 8** shows fields at the same park: Field EX01 is Natural Turf; Field EX03 is Synthetic Turf.

Table 8: Example Premium Modifier for Synthetic Turf Rectangle

Park Location	Map ID	Type	Sum of Field Scoring * Access Percentage	Park Modifier	Rectangle Score* Park Amenities Modifier	Synthetic Field Access Premium Modifier	Modified Rectangle Score * Final Synthetic Modifier Added (x2)
Park A	EX01	MP FIELD	12	2.2	26.4		26.4
Park A	EX03	MP FIELD - Synthetic	12	2.2	26.4	2	52.8

Synthetic turf increases the amount of useable or programmable time for rectangle fields; therefore, the final field scores were doubled. As field lights also significantly increase the amount of useable time for diamond fields the presence of field lights multiply the value of a diamond by 1.5 times for the purposes of this study. A complete ranking of all fields included in the dataset are included in **Appendix B**.

Findings Summary for Park Amenities (In no particular order)

- Parking and traffic flow issues create safety concerns.
- Field user access to quality restrooms is inconsistent.
- Currently, there is insufficient and/or insecure maintenance storage for equipment and materials.
- Availability of drinking water close to fields is limited.
- There is a lack of functioning concessions stands.
- ADA Access is inconsistent across system.

Findings Summary of Diamond Assessment (In no particular order)

- Drainage issues contribute to infield and overall poor field conditions.
- Turf upgrades show significant improvements where completed.
- Programmable irrigation positively impacts turf conditions.
- Low scoring diamonds lack field lighting.
- Bleacher quality and accessibility varies across system.
- Scoreboard additions needed at tournament facilities.
- Covered dugout project is progressing, but several fields still need to be upgraded.
- Backstops and fencing generally in good shape.
- ADA access inconsistent.

Findings Summary of Rectangle Assessment (In no particular order)

- Lack of irrigation negatively impacts turf conditions.
- Highest scoring fields are lighted.
- Relatively few fields have bleachers.
- Soccer goals should be upgraded to lightweight non-tip goals.

B. Access to Park with Diamonds and/or Rectangles

Building Parks Where People Live

Access to fields in Stafford County is highly dependent on motor vehicle transportation, which may or may not be available to all age groups utilizing athletic fields. Therefore, distributing parks and fields throughout the county enables users to access a park or parks closer to their homes and results in a more sustainable system.

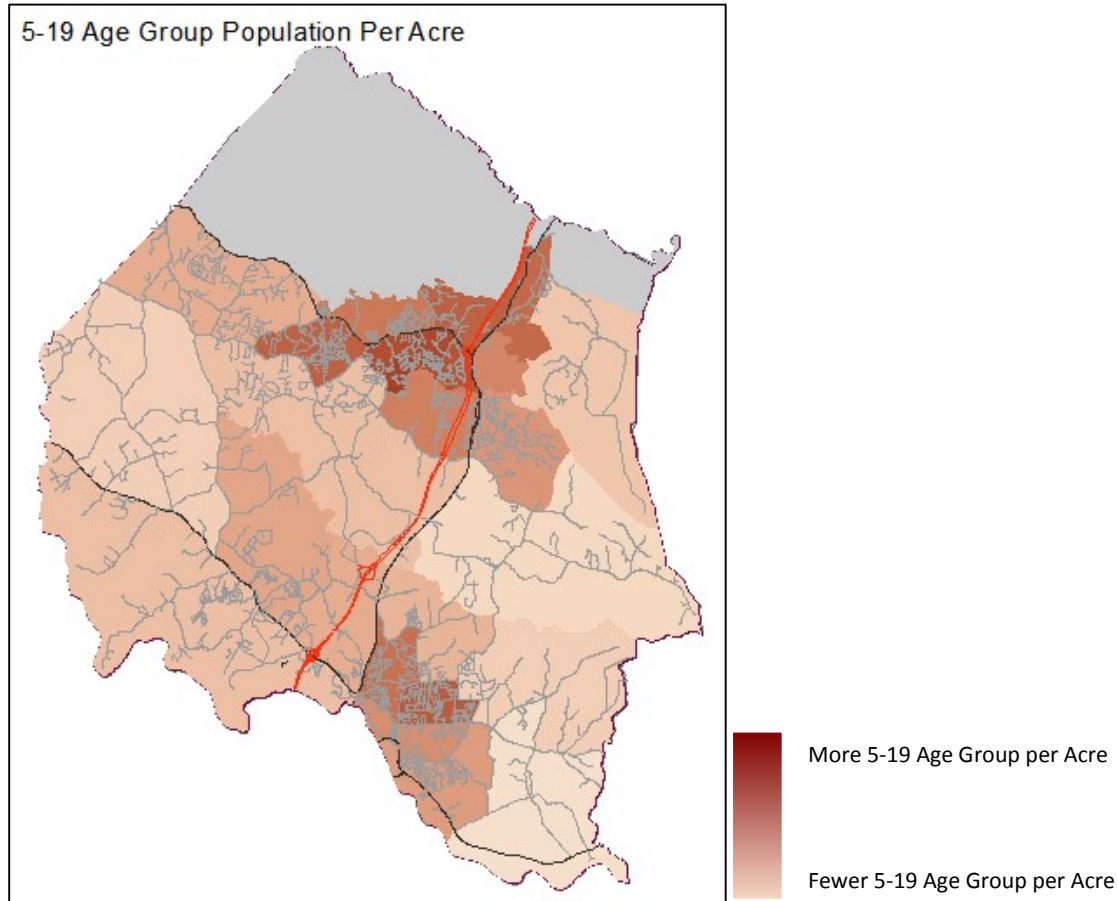
Analysis One – Population Density of the 5-19 Age Group

The following analysis in **Map C** represents the current concentrations of the 5-19 age group by displaying the population density of the age group in a gradient format.

- Population density based on 2010 census tracts as provided by ESRI
- Darker areas have a higher concentration of the 5-19 age group per acre

Overall, there appears to be two primary concentrations of the study age group: North central and south central.

Map C: Population density of 5-19 Age Group in Stafford County



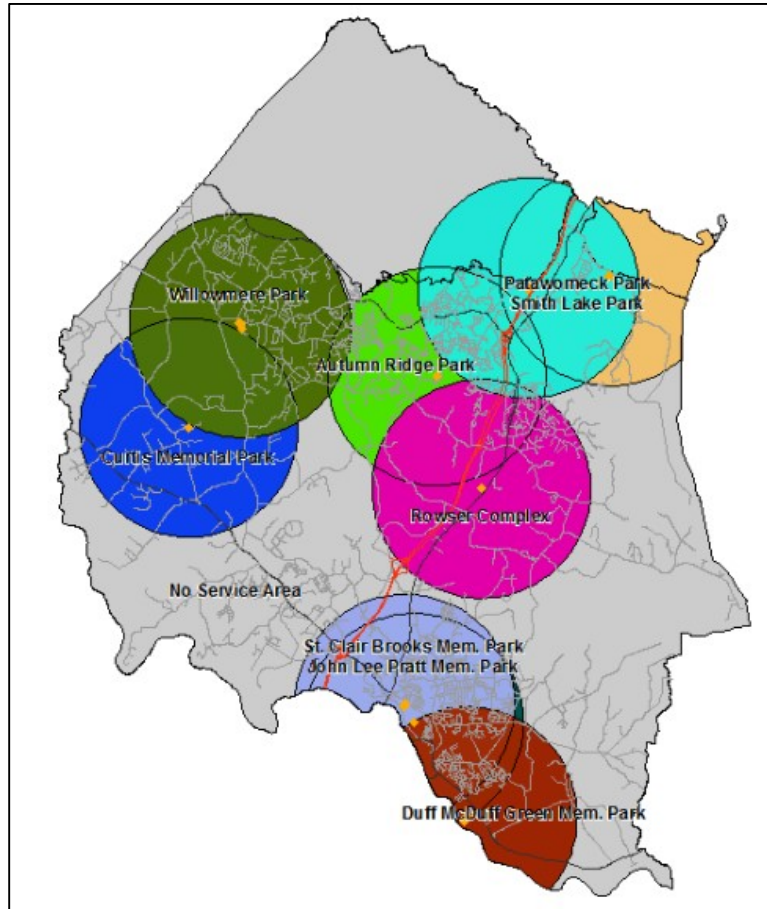
Population densities in this map range from .03 children per acre to 1.9 children per acre. (The Marine Corps Base Quantico was not included in the analysis throughout the study.)

Analysis Two – Current Park Distribution and Catchment Areas

The following **Map D** shows the current distribution of Stafford County Parks that have diamonds and/or rectangles. Three mile radii shown for each existing park demonstrate that county parks are generally distributed approximately three miles apart. An assumption is made that all fields being equal in value, a user would travel to the closest available field. This map indicates that in the case of Stafford County that distance is generally three miles.

Catchment Areas/Service Areas: A three-mile radius represents the area from which it is assumed the majority of users of a specific park travel from to use a diamond or a rectangle.

Map D: Existing Park Distribution and Catchment Areas



To support the three-mile catchment and confirm a reasonable 20 minute drive time, further analysis was done using ESRI Network Analyst software and data. This analysis determined travel routes from entry points of several existing and proposed Stafford County parks with multiple fields and revealed that a driver anywhere in the county can typically travel at least three miles in twenty minutes or less. The minimum calculated distance averaged 3.2 miles although from some locations a driver can travel nearly 18 miles in the twenty minute timeframe. The three mile proximity is also able to account for extended drive times due to common travel issues. Since the average distance traveled in 20 minutes is greater than nine miles, this would indicate that even if drive times are tripled due to heavy traffic or construction, the average trip will still cover more than three miles in the 20 minutes. Further discussion on the ESRI Network Analyst and Drive Time Analysis can be found in **Appendix D**.

Analysis Three – Current Park and School Diamonds* in County

A review of the inventory database shows currently there are 23 diamonds in County Parks and 22* schools diamonds. *Note: *This table only includes schools that currently offer Stafford County Parks and Recreation programming access. See the following tables.*

Table 9: Existing Diamond Inventory

A.G. WRIGHT M.S.	2		
BROOKE POINT H.S.	1		
COLONIAL FORGE H.S.	2		
DIXON-SMITH M.S.	1		
DREW M.S.	1		
FALMOUTH E.S.	1		
FERRY FARM E.S.	1		
GAYLE M.S.	1		
H.H. POOLE M.S.	1	Smith Lake Park	3
HAMPTON OAKS E.S.	1	Duff McDuff Green Mem. Park	3
HARTWOOD E.S.	1	Patawomeck Park	2
MELCHER CENTER	1	St. Clair Brooks Mem. Park	2
MOUNTAIN VIEW H.S.	1	Willowmere Park	4
NORTH STAFFORD H.S.	2	Rowser Complex	1
RODNEY E. THOMPSON M.S.	2	Autumn Ridge Park	1
STAFFORD E.S.	1	John Lee Pratt Mem. Park	1
STAFFORD H.S.	1	Curtis Memorial Park	1
STAFFORD M.S.	1	Chichester Park (Funded)	5
Total:	22	Total:	23

Access to Diamonds

Analysis Four – System Wide Access to Diamonds

One of the traditional tools for evaluating service for parks and recreation is the capacity analysis. This analysis compares the quantity of assets to population. **Table 9** shows the current capacities for diamonds in Stafford County. This table can be used in conjunction with other information, such as input from focus groups, staff, and the general public, to determine if the current capacities are adequate or not for specific types of fields. These ratios can be used for future planning as population continues to grow. **Further discussion on capacity analysis, the lack of national standards, and other communities measured by the consultant can be found in Appendix C.**

The following table is a summary of the total number of diamonds for parks and schools. Also shown is the 2012 population for the 5-19 age group. Based on these numbers, an overall ratio of diamonds and rectangle fields per 1,000 5-19-year-olds can be calculated, and future population growth can be projected. A determination can then be made about how many fields are needed to maintain the current level of service. One of the limitations of this type of analysis is that it does not take into consideration the location or distribution of diamonds in the system.

Table 10: Stafford County Diamond Field Capacity and Projection Analysis

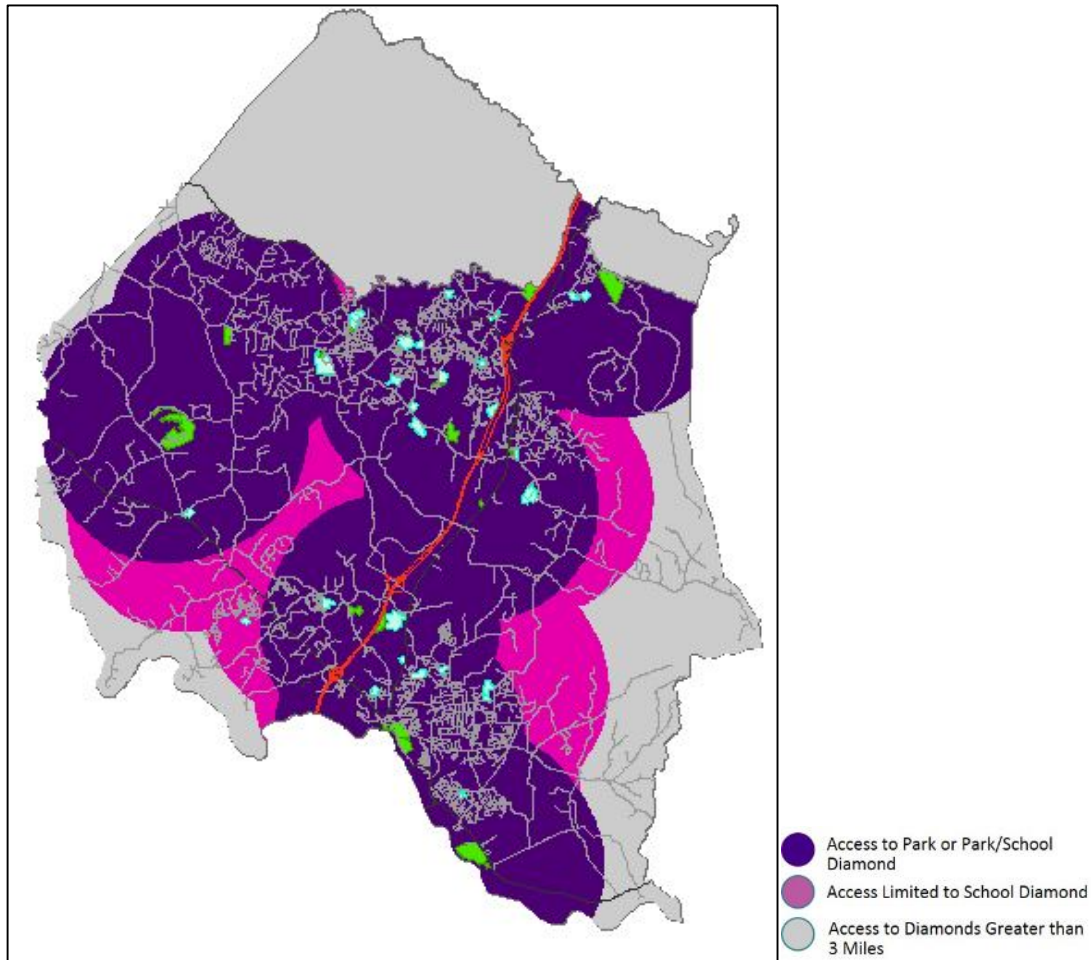
Based on 5-19 Age Group				
Stafford County, VA				
	Population	County Diamond Fields (Including 5 Fields at Chichester)	School Diamond Fields	Total Diamond Fields
INVENTORY - 2013				
Total		23	22	45
CURRENT RATIO PER POPULATION				
POPULATION 2012 Ages 5-19	31,760			
Components per 1000 Population		0.72	0.69	1.42
Population per each component		1,381	1,444	706
POPULATION 2017 Ages 5-19	33,474			
% Increase	5.40%			
Total Needed to Maintain Existing Level of Service		24.24	23.19	47.43
Total number to add to existing 2013 Inventory		1.24	1.19	2.43
POPULATION 2022 Ages 5-19	35,282			
% Increase	5.40%			
Total Needed to Maintain Existing Level of Service		25.55	24.44	49.99
Total number to add to existing 2013 Inventory		2.55	2.44	4.99

Based on ESRI Projections

Analysis Five – Access to Diamonds within a Three Mile Radius

Analysis five, represented in **Map E**, examines the distribution of diamonds across the county. Residents or users within the dark purple area have access to at least one diamond within three miles. This area accounts for a three-mile radius on all park diamonds. In addition, it should be noted that residents in this area may also have access to a school diamond. Diamond access for residents in the pink area is limited to schools or requires traveling further than three miles to reach a park diamond. Areas gray in color show locations where access to any diamond is greater than three miles away.

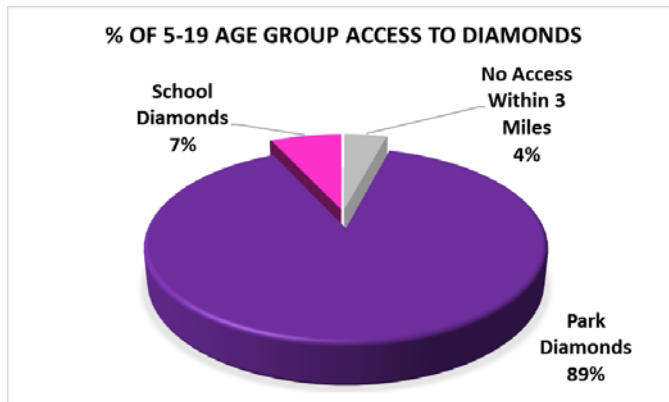
Map E: 3 mile access to Park and School Diamonds



Analysis Six- Access to a Diamond within 3 Miles, Ages 5-19

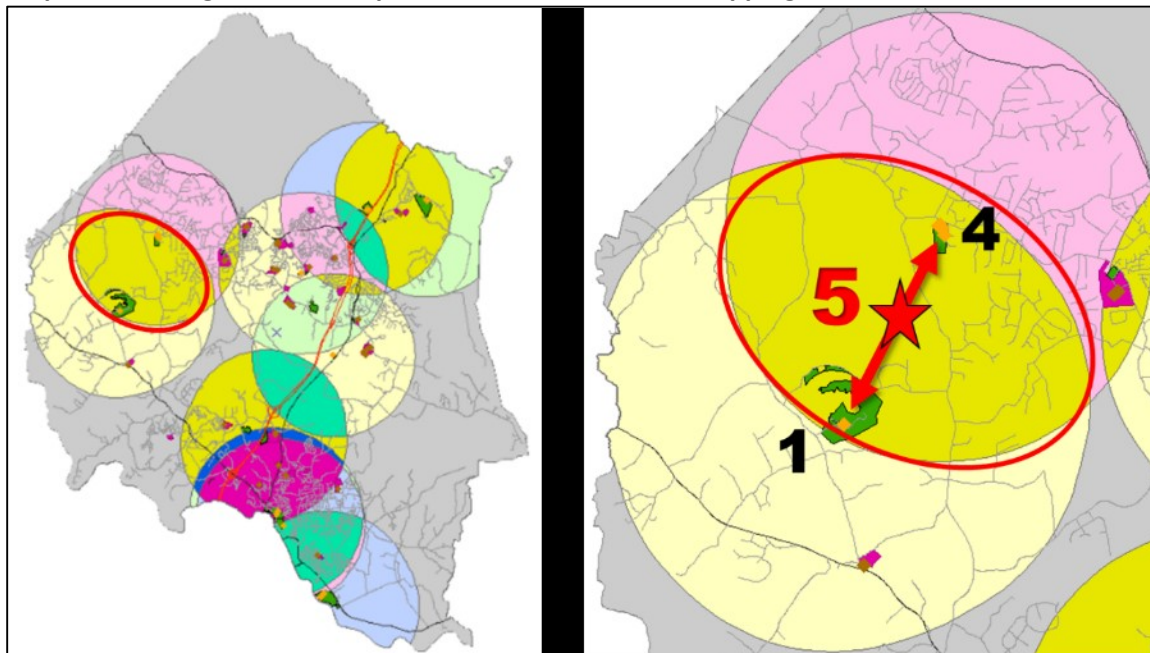
In addition, this analysis (**Figure 2**) looks at the demographics of the areas within three miles of each diamond. The following pie chart summarizes this finding to show that 96 percent of County residents have access to a diamond within three miles of their home.

Figure 2: Population Analysis of Access to Park and School Diamonds



In the **Map F** enlargement, the numbers 1 and 4 indicate the respective number of diamonds at Curtis Park and Willowmere. The illustration shows that the residents living in overlapping catchment areas actually have access to a total of five diamonds within three miles.

Map F and Enlargement: Example of access based on overlapping catchment areas

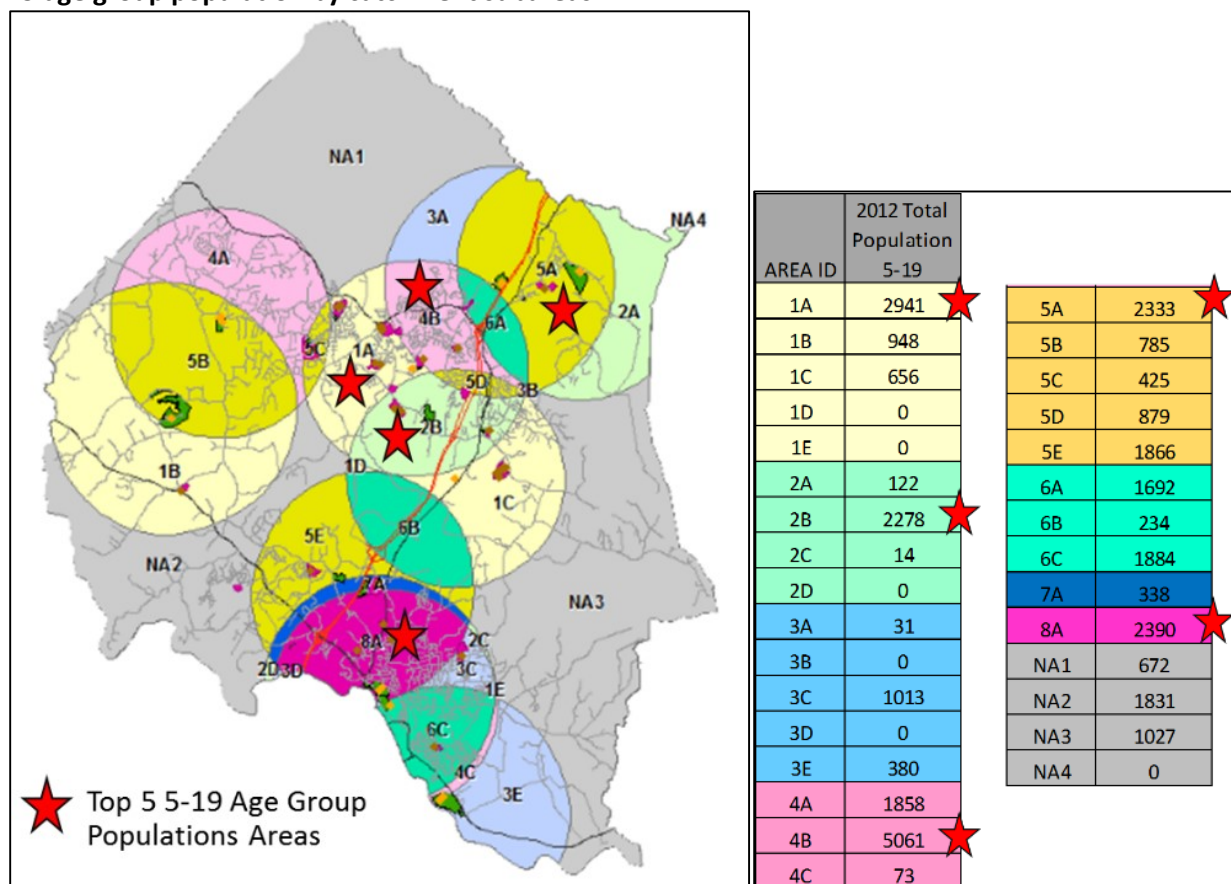


Analysis Seven - Top Five 5-19 Age Group Population Analysis Using 3 Mile Park Diamond Catchment Areas

An assumption might be made that areas in which there are more 5-19-year-olds, more fields are needed. Analysis seven looks at the total 5-19 age group population by catchment area. As previously explained, overlap of two or more catchment areas creates a new catchment subarea. The red stars on *Map G* link to the corresponding table and indicate the five catchment subareas with the highest 5 to 19-year-old populations.

Note: The number prefix in the Area ID indicates the number of fields accessible to each area. For example, in area 6A, 1,692 residents have access to six fields. Using the number of fields and the age group population, one can calculate the diamond to population ratio in analysis eight.

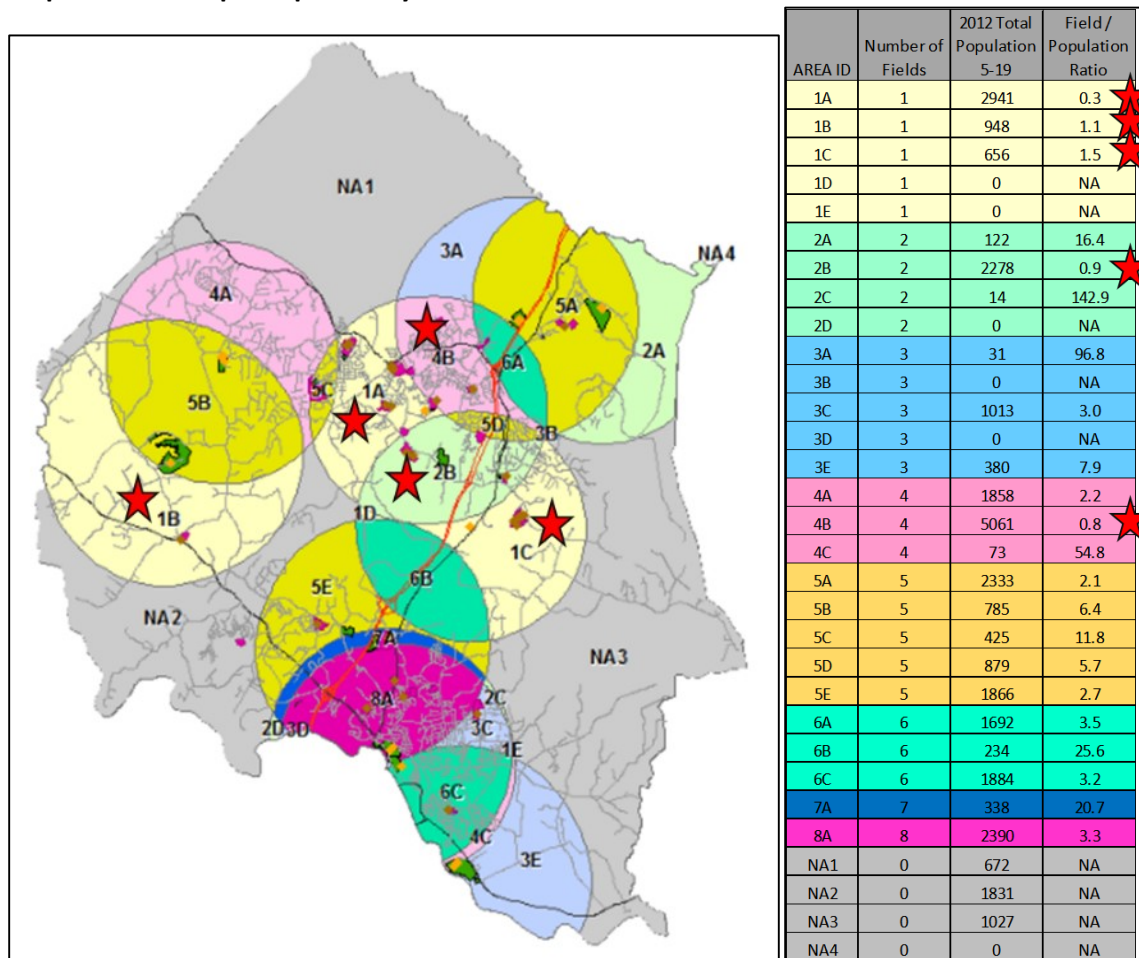
Map G: Population analysis using 3 mile park diamond catchment areas and corresponding table of 5-19 age group population by catchment subareas



Analysis Eight - Diamond to Age Group Population Ratio

Based on the premise that more fields are likely needed where more youth live, a low ratio may indicate a need for more fields based on the potential number of users per field. Note: In **Map H**, the number prefix in Area ID indicates the number of fields accessible to each area. For example, in area 2B, 2,278 kids access 2 fields vs. 2C where 14 kids access 2 fields. Red stars on the map correspond to the five lowest diamond/population ratios in the table.

Map H: Diamond per capita analysis

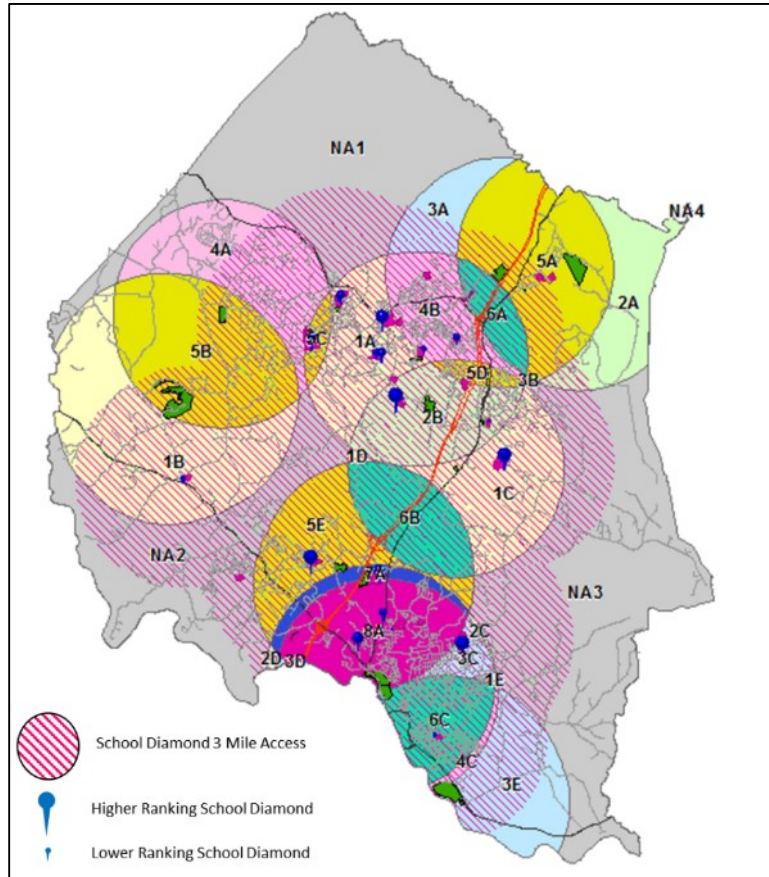


When one compares **Map H** in analysis eight to the **Map G** in analysis seven, it becomes apparent that three of the areas are consistent. Areas 1A, 2B, and 4B not only have a high population of the age group, but also have among the lowest diamond-to-population ratio. Again, the number prefix in Area ID indicates number of fields accessible to each area. For example, in area 2B, 2,278 children access 2 fields, versus area 2C where 14 kids access 2 fields.

School Diamonds

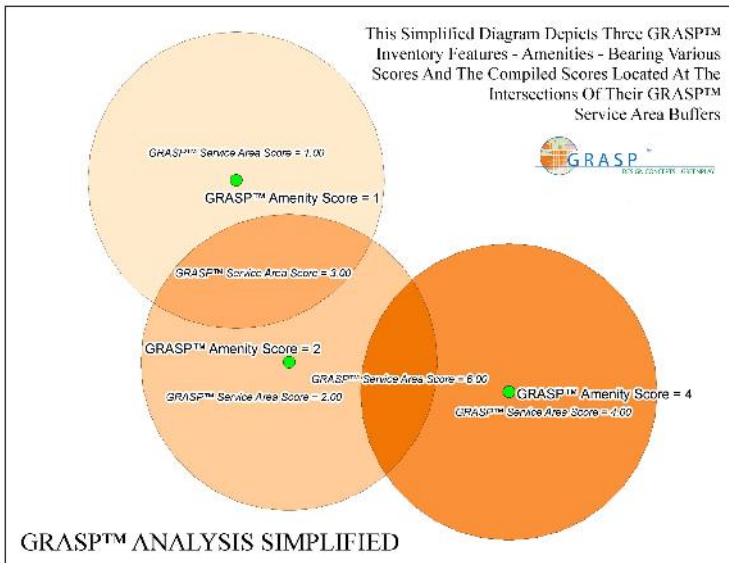
The hatched area on **Map I** represents three-mile catchment for all school diamonds currently used by Stafford County Parks and Recreation. While school diamond access is limited, there is some current school access in areas that are currently showing low diamond-to-population ratio. These diamonds are providing a valuable supplement to Park diamonds.

Map I: School Diamond Overlay



C. Basics of GRASP® Analysis

GRASP® calculates a composite value based on the scoring value of all parks and amenities that are accessible from a given area in the system. For the purposes of this study, the previously discussed Field Ranking Formula is used to determine the GRASP® value for each field. GRASP® factors in both quantity and quality of all components to create a composite look at level of service.



Analysis Nine - GRASP® Analysis of Diamonds

Table 11 shows the overall GRASP® composite value by park used in the analysis. The scores for individual diamonds were calculated using the field ranking formula presented earlier in this document. The composite value for each park is the sum of all diamonds at one location. For example, Smith Lake Park has three diamonds that, when combined, create an overall value of 303.6. Composite values for school locations area also included in this analysis based on the table values. As a reminder, the GRASP® composite value not only includes quantity of fields at one location but also the quality of those fields. Thus, the overall value of a given location within Stafford County takes into account all programmed fields at parks or schools with adjustments made based on field condition and park amenities.

For the case of planned and funded diamonds at Chichester Park, an assumption was made that these five new diamonds would be at least the equivalent of the highest ranked fields in the current system. Therefore, these five diamonds received a score equal to the average of the Smith Lake diamonds at 101.2. Because Chichester will have five total diamonds, and Smith Lake has three diamonds, the overall score and level of service provided by Chichester is higher than Smith Lake.

Composite-Values Level of Service (LOS) Analysis

– This is the process used to inventory and analyze the assets, including quantity, location, and various qualities of each. The process utilizes MS Excel, MS Access, and common GIS software. The composite-values based LOS analysis process used by GreenPlay and Design Concepts is proprietary, and known as “GRASP®” (Geo-referenced Amenities Standards Process). It has been somewhat automated through creation of additional software code and template design for efficiency in data collection and analysis. See **Appendix C** for a detailed history and overview of Composite-Values Based Level of Service Analysis.

Table 11: Composite GRASP® scoring by Park and School

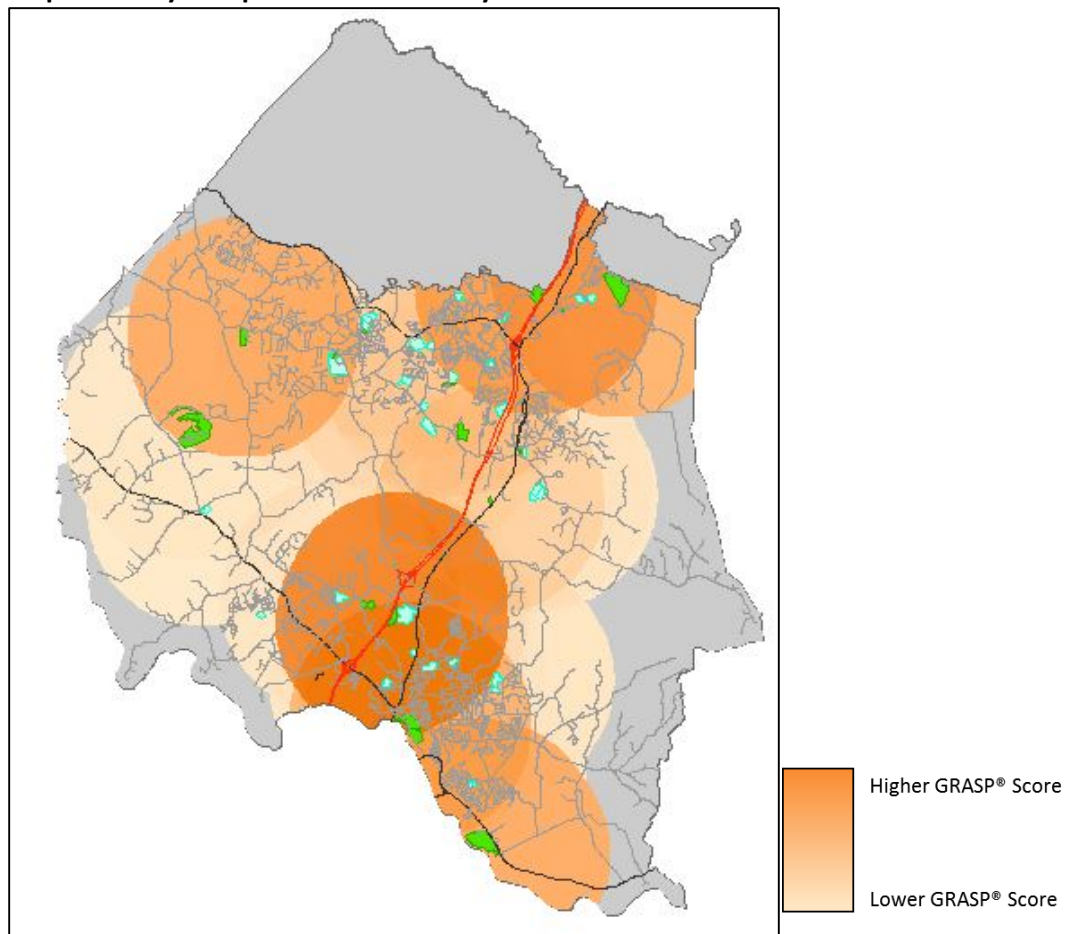
Map_ID	Park Name	Number of Diamonds	Cumulative Score	Average Diamond Score	PD_Comp
P014	Smith Lake Park	3	303.6	101.2	303.6
P006	Duff McDuff Green Mem. Park	3	243.0	81.0	243.0
P011	Patawomeck Park	2	156.8	78.4	156.8
P015	St. Clair Brooks Mem. Park	2	125.4	62.7	125.4
P017	Willowmere Park	4	242.6	60.6	242.6
P013	Rowser Complex	1	44.1	44.1	44.1
P001	Autumn Ridge Park	1	26.6	26.6	26.6
P009	John Lee Pratt Mem. Park	1	17.1	17.1	17.1
P005	Curtis Memorial Park	1	7.6	7.6	7.6
P003	Chichester Park (Funded)	5	Assumed	101.2	506

S_Map_ID	School Name	Number of Diamonds	Cumulative Score	Average Diamond Score	SD_Comp
MS07	RODNEY E. THOMPSON M.S.	2	11.4	5.7	11.4
HS02	COLONIAL FORGE H.S.	2	11.2	5.6	11.2
MS01	A.G. WRIGHT M.S.	2	10.4	5.2	10.4
MS02	DIXON-SMITH M.S.	1	9.8	9.8	9.8
MS04	GAYLE M.S.	1	9.8	9.8	9.8
HS04	NORTH STAFFORD H.S.	2	9.52	4.76	9.5
HS01	BROOKE POINT H.S.	1	8.505	8.505	8.5
HS03	MOUNTAIN VIEW H.S.	1	7.644	7.644	7.6
ES11	MELCHER CENTER	1	7.425	7.425	7.4
HS05	STAFFORD H.S.	1	7.308	7.308	7.3
MS03	DREW M.S.	1	4.95	4.95	5.0
ES07	HAMPTON OAKS E.S.	1	4.9	4.9	4.9
MS05	H.H. POOLE M.S.	1	4.2	4.2	4.2
ES08	HARTWOOD E.S.	1	3.9	3.9	3.9
MS08	STAFFORD M.S.	1	3.85	3.85	3.9
ES04	FERRY FARM E.S.	1	3.5	3.5	3.5
ES03	FALMOUTH E.S.	1	3	3	3.0
ES16	STAFFORD E.S.	1	3	3	3.0

When catchment areas from multiple locations with associated scores are plotted on a map, a picture emerges that represents the cumulative level of service. Where catchment areas for multiple locations overlap, a darker shade results and indicates locations that are “served” by a combination of more diamonds and/or higher quality ones. In other words, **where there are darker shades, the level of service is higher** for that particular Perspective. It is important to note that the shade overlaying any given point on the map represents the cumulative value offered by the surrounding park system to an individual situated in that specific location, rather than the service being provided by fields at a location to the areas around it.

In this case (**Map J**), it appears that several areas of more concentrated level of service around Chichester, Willowmere, McDuff, and the combination of Smith Lake and Patawomeck. In general, it can be said that residents in these areas have access to a greater number of diamonds and/or higher ranking diamonds than areas that appear lighter orange.

Map J: County Composite GRASP® analysis of diamonds

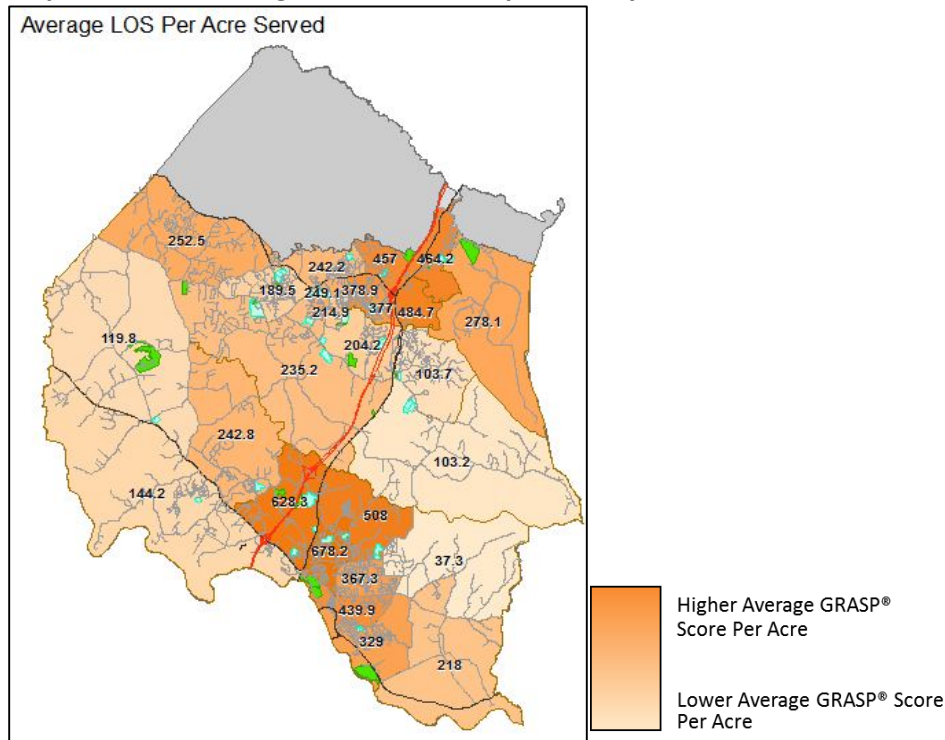


Analysis Ten – GRASP® Average Level of Service per Acre by Census Tract

Another way to look at the GRASP® level of service analysis is to look at the average level of service score across an area such as census tracts. Choosing census tracts as a means of calculating level of service affords the benefit of accurate population analysis as well.

Map K represents the average GRASP® level of service per acre by census tract. In this map, the higher the average level of service (LOS) the darker the orange gradient. In this case, larger census tracts with a high scoring facility in one portion of the census tract may actually diffuse the gradient as the average across all of the associated acres is calculated. The GRASP® average LOS per acre score is shown as a label for reference. In this map, we see concentrations of higher scores in the northeast and south-central regions of the county.

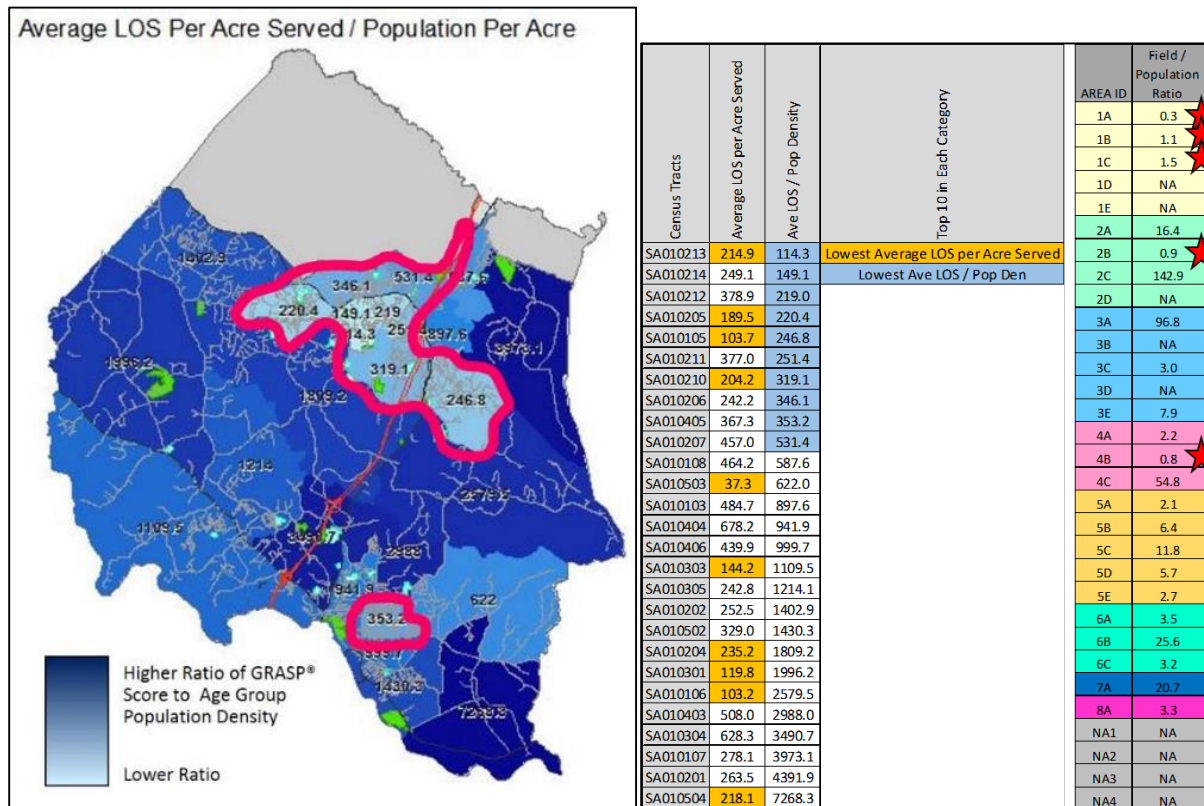
Map K: GRASP® Average Level of Service per acre by census tract



Analysis Eleven – GRASP® Correcting for Population Density of Census Tracts

Similar to analysis eight, it is helpful to look at the average LOS per acre when corrected for population density. The blue shaded in **Map L** below combines the data from population density and average level of service per acre to give a ratio of GRASP® score per capita. Areas of dark blue indicate a higher level of service per capita compared to lighter shades of blue.

Map L: Average GRASP® LOS per acre served to the population aged 5-19 ratio and corresponding tabular data.



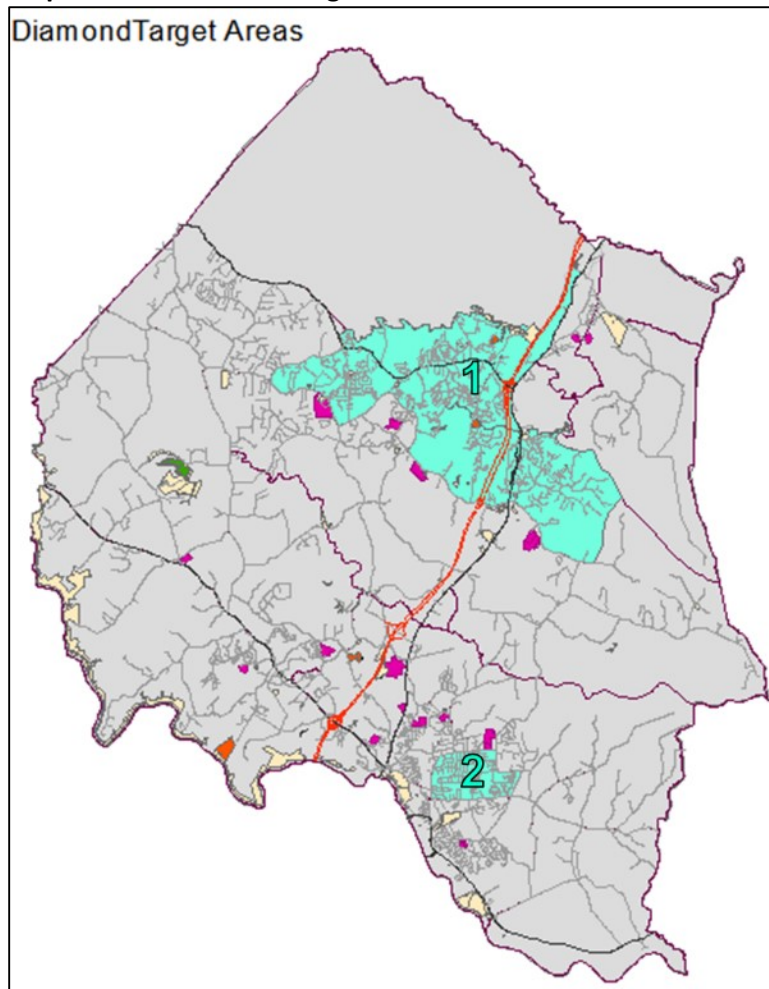
Keep in mind that GRASP® takes into account not only quantity of fields, but also the quality of those fields. This analysis also includes GRASP® scoring for the school athletic fields. Comparing this analysis to the previous analysis shows that there is some consistency in areas that are lower in level of service for diamonds. This would indicate that not only are there more residents in these areas, but that these residents have access to fewer diamonds per capita and the value of those diamonds available is lower than in other areas.

The associated tables represent the mapped data in tabular format for comparison. The ten lowest values are represented in the third column by blue fill and the red stars in the second table represent the areas on the map outlined in red.

D. Diamond Findings Summary

Map M, below, is a simplification of the above analysis that identifies Diamond Target Areas as areas currently the in lowest in Average GRASP® LOS per acre served to 5-19 age group population ratio.

Map M: Diamond Field target areas



- Target Areas 1 & 2 currently have the lowest level of diamond service.
- Existing County Parks both within and adjacent to the Target Areas may provide opportunities to increase level of service inside the Target Areas.
- School Diamonds are available and utilized in Target Areas.
- Other Vacant County Owned Lands also exist within the Target Areas.

Access to Rectangles

Analysis Twelve – Current Park and School Rectangles* in County

A review of the inventory database shows currently there are 28 rectangles in County Parks and 22* schools rectangles.

**Note: The tables below only include schools that currently offer Stafford County Parks and Recreation programming access.*

Table 11: Rectangle inventory

Embrey Mill Park (Proposed)	6	H.H. Poole M.S.	1
Smith Lake Park	2	Anthony Burns E.S.	1
Patawomeck Park	2	Winding Creek E.S.	2
John Lee Pratt Mem. Park	5	Park Ridge E.S.	1
Duff McDuff Green Mem. Park	2	Margaret Brent E.S.	1
Willowmere Park	3	Stafford E.S.	1
St. Clair Brooks Mem. Park	1	Ferry Farm E.S.	1
Curtis Memorial Park	1	Rodney E. Thompson M.S.	2
Autumn Ridge Park	1	Conway E.S.	1
River Road Park	1	Melcher Center	1
Courthouse Community Center	1	A.G. Wright M.S.	1
Carl Lewis Community Center	1	Drew M.S.	2
Vista Woods Field	1	Garrisonville E.S.	1
Mountain View RD Frontage Property	1	Gayle M.S.	1
Total:	28	Hartwood E.S.	2
		Widewater E.S.	1
		Dixon-Smith M.S.	2
		Total:	22

Analysis Thirteen– System Wide Access to Rectangles

Table 12 shows the current capacities for rectangles in Stafford County. The following table is a summary of the total number of rectangles for parks and schools for the 2012 population of the 5-19 age group. Based on these numbers, an overall ratio of diamonds and rectangle fields per 1,000 5-19-year-olds can be calculated. Future population growth can be projected, and determinations can be made about how many fields are needed to maintain the current level of service.

Table 12: Stafford County Rectangle Field Capacity and Projection Analysis

Based on 5-19 Age Group				
Stafford County, VA				
	Population	County Rectangle Fields (Including 6 Fields at Emory Mill)	School Rectangle Fields (Non H.S.)	Total Rectangle Fields
INVENTORY - 2013				
Total		28	22	50
CURRENT RATIO PER POPULATION				
POPULATION 2012 Ages 5-19	31,760			
Components per 1000 Population		0.88	0.69	1.57
Population per each component		1,134	1,444	635
POPULATION 2017 Ages 5-19	33,474			
% Increase	5.40%			
Total Needed to Maintain Existing Level of Service		29.51	23.19	52.70
Total number to add to existing 2013 Inventory		1.51	1.19	2.70
POPULATION 2022 Ages 5-19	35,282			
% Increase	5.40%			
Total Needed to Maintain Existing Level of Service		31.11	24.44	55.54
Total number to add to existing 2013 Inventory		3.11	2.44	5.54

Based on ESRI Projections

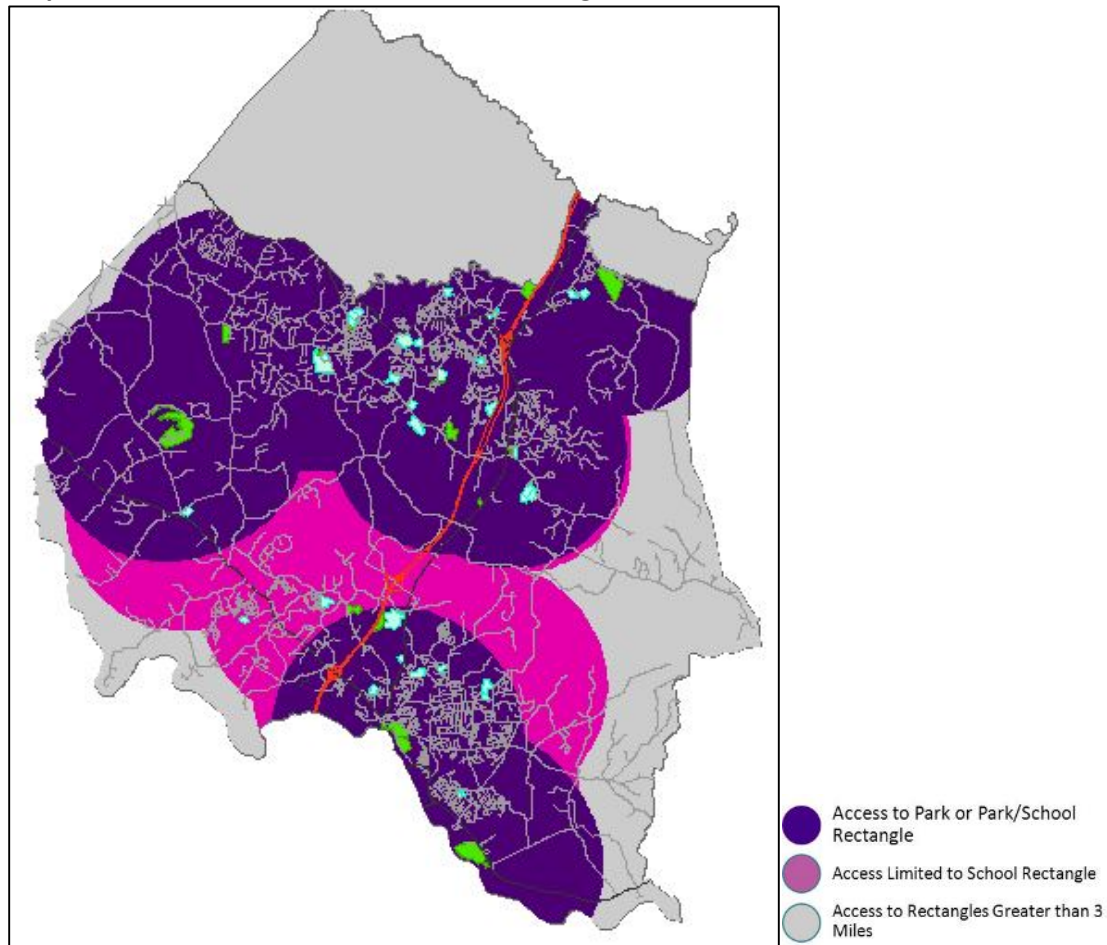
Again, one of the limitations of this type of analysis is that it does not take into consideration the location or distribution of rectangles in the system.

Analysis Fourteen – Access to Rectangles within a 3 Mile Radius

(Map N) examines the distribution of rectangles across the county. Residents or users within the dark purple area have access to at least one rectangle within three miles. This area accounts for a three mile radius on all park rectangles. It should be noted that residents in this area may also have access to a school rectangle. For residents in the pink area, rectangle access is limited to schools or requires traveling further than three miles to a park rectangle. Areas gray in color represent access to any rectangle is greater than three miles away.

Note: Rectangles are often configured in multiple formats to accommodate a variety of users and age groups. For example: Large open fields such as Pratt Park were estimated to accommodate approximately five full size fields for the purposes of this study.

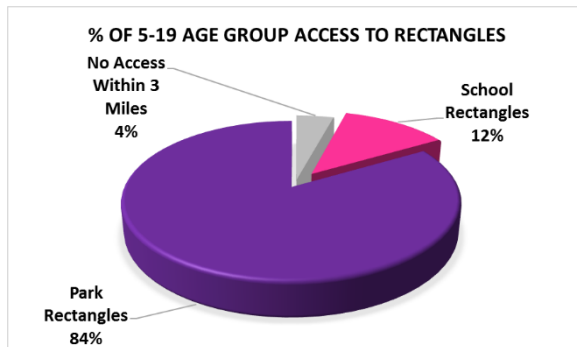
Map N: 3 mile access to Park and School rectangle fields



Analysis Fifteen – 96% of 5-19 Age Group Have access to a Rectangle within 3 Miles

Demographic analysis of the areas presented in *Map N* shows similar results to the analysis done for diamonds. Ninety-six percent (96%) of residents have access to rectangles within three miles, but have a slightly higher reliance on school rectangles when compared to diamonds (12% vs. 7%). Only four percent of the population must travel further than three miles to access a rectangle.

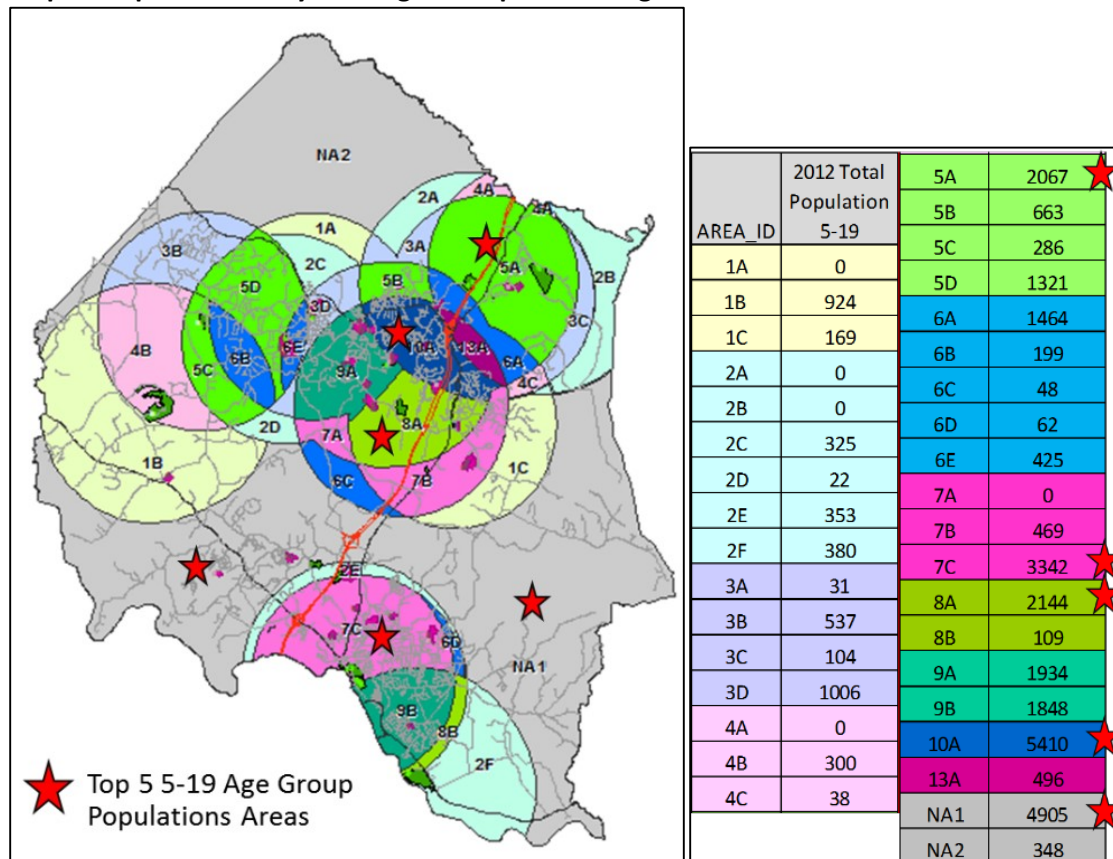
Figure 3: Population Analysis of access to Park and School rectangle fields



Analysis Sixteen – Top 5 Age Group Population Analysis Using 3 Mile Park Rectangle Catchment Areas

The top 5 highest population areas with access to rectangles are shown in **Map O** and the corresponding table and are indicated by red stars. An assumption might be made that where there are more residents in the 5-19 age group more fields are needed. Note the number prefix in Area ID indicates the number of fields accessible to each area. For example, in area 6A, 1,464 residents have access to six fields.

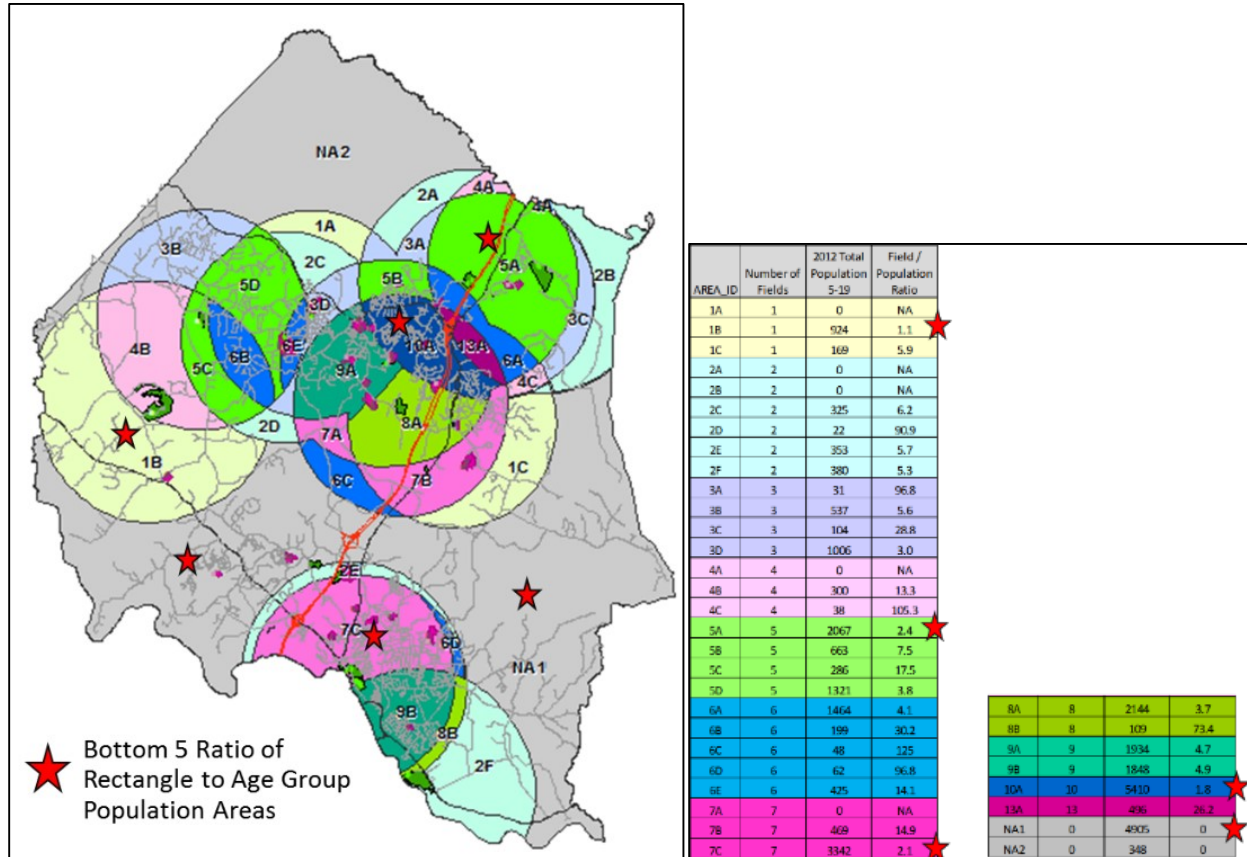
Map O: Population analysis using 3 mile park rectangle catchment areas



Analysis Seventeen – Rectangle to Age Group Population Ratio

Calculation and mapping of the rectangle to population ratio is presented in **Map P** and the corresponding table. The five lowest ratios are identified by red stars. A low ratio number may indicate a need for more rectangles based on potential number of users per field. As with diamonds, there is some consistency between the areas identified in both analyses. Areas exist with a high number of youth that also tend to have a lower youth-to-rectangle ratio when compared to other areas in the county. The large area in **Map P** indicated as NA1 may need further investigation to determine the actual concentrations of residents.

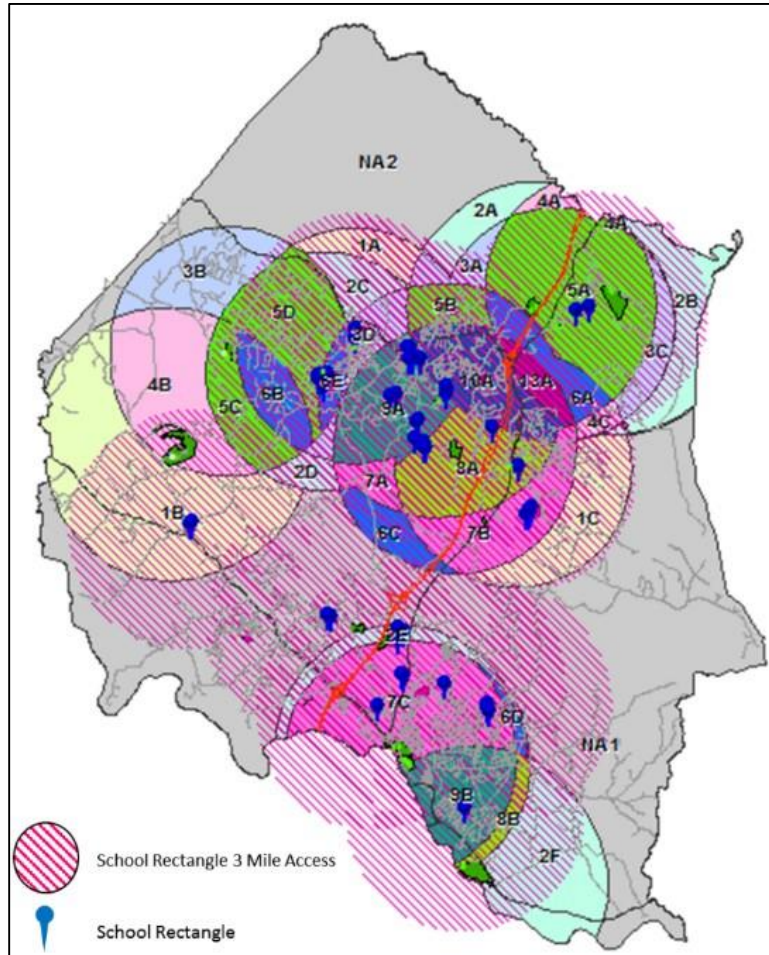
Map P: Rectangle per capita analysis



School Rectangles

Similar to school diamonds, **Map Q** shows a three-mile catchment for all school rectangles currently used by Parks and Recreation. School rectangle access has limited availability, but there is some current school access in areas that currently show low rectangle to population ratio. These rectangles provide a valuable supplement to Park rectangles.

Map Q: School rectangle overlay



Analysis Eighteen – GRASP® Analysis on Rectangles

Table 13 shows the overall GRASP® rectangle composite value by park use in analysis. The scores for individual rectangles were calculated using the field ranking formula presented earlier in this document. The composite value for each park is the sum of all rectangles at one location. For example, Smith Lake Park has two rectangles that, when combined, create an overall value of 105.6. Composite values for school locations are also included in this analysis based on the table values below. As a reminder, the GRASP® composite value not only includes quantity of fields at one location but also the quality of those fields.

In the case of planned and funded rectangles at Embrey Mill Park, an assumption was made that these brand new rectangles would be at least the equivalent of the highest ranked fields in the current system. Therefore, these rectangles received a score equal to the average of the Smith Lake synthetic fields and the Patawomeck natural turf fields to account for the mixture of surfacing on the new fields at Embrey Mill. Again, the overall GRASP® score for any location is directly related to the score of each individual field and the number of fields at that location. Therefore, because Embrey Mill will have six fields, it scores significantly higher than similar fields at Smith Lake.

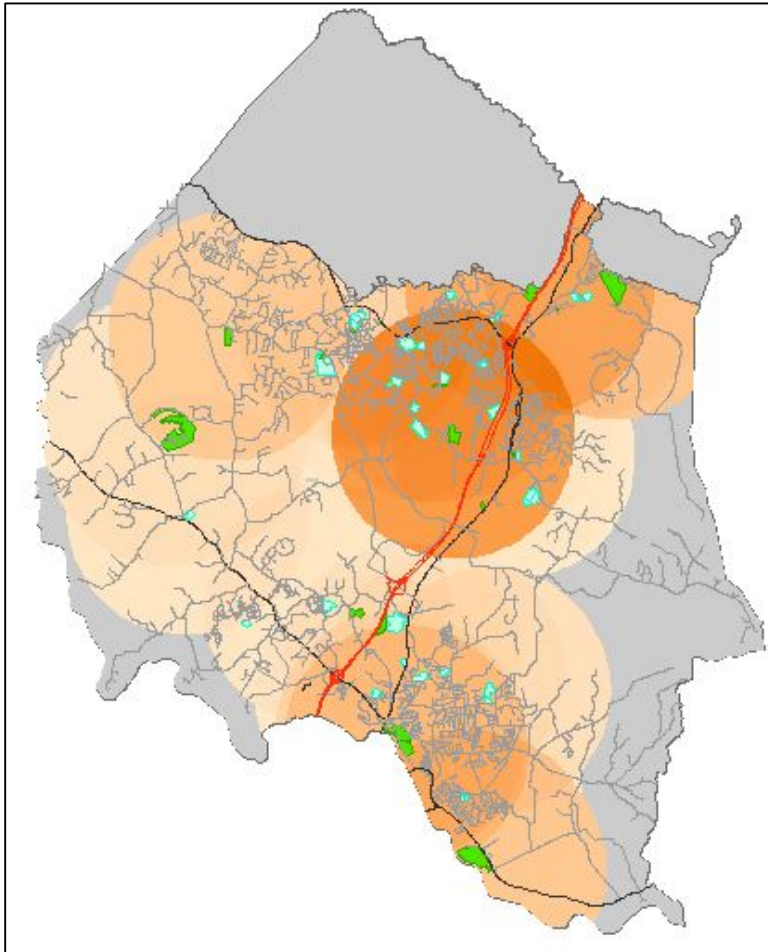
Table 13: Composite GRASP® scoring by Park and School for rectangle fields

Map_ID	Park Name	Number of Rectangles	Cumulative Score	Average Rectangle Score	PR_Comp
P007	Embrey Mill Park (Funded)	6	272	45.3	272
P014	Smith Lake Park	2	105.6	52.8	105.6
P011	Patawomeck Park	2	60.8	30.4	60.8
P009	John Lee Pratt Mem. Park	5	57	11.4	57
P006	Duff McDuff Green Mem. Park	2	56	28.0	56
P017	Willowmere Park	3	42.7	14.2	42.7
P015	St. Clair Brooks Mem. Park	1	17.1	17.1	17.1
P005	Curtis Memorial Park	1	7.6	7.6	7.6
P001	Autumn Ridge Park	1	7	7.0	7
P012	River Road Park	1	4.8	4.8	4.8
P004	Courthouse Community Center	1	4.4	4.4	4.4
P002	Carl Lewis Community Center	1	2.2	2.2	2.2
P016	Vista Woods Field	1	2	2.0	2
P018	Mountain View RD Frontage Property	1	0	0.0	0

S_Map_ID	School Name	Number of Rectangles	Rectangle Cumulative Score	Average Rectangle Score	SR_Comp
MS05	H.H. Poole M.S.	1	0.98	0.98	1.0
ES01	Anthony Burns E.S.	1	1.3	1.3	1.3
ES18	Winding Creek E.S.	2	1.3	0.65	1.3
ES13	Park Ridge E.S.	1	1.4	1.4	1.4
ES10	Margaret Brent E.S.	1	2.1	2.1	2.1
ES16	Stafford E.S.	1	2.4	2.4	2.4
ES04	Ferry Farm E.S.	1	2.8	2.8	2.8
MS07	Rodney E. Thompson M.S.	2	3.672	1.836	3.7
ES02	Conway E.S.	1	3.75	3.75	3.8
ES11	Melcher Center	1	3.85	3.85	3.9
MS01	A.G. Wright M.S.	1	3.9	3.9	3.9
MS03	Drew M.S.	2	6.05	3.025	6.1
ES05	Garrisonville E.S.	1	6.3	6.3	6.3
MS04	Gayle M.S.	1	6.3	6.3	6.3
ES08	Hartwood E.S.	2	6.5	3.25	6.5
ES17	Widewater E.S.	1	11.05	11.05	11.1
MS02	Dixon-Smith M.S.	2	13.3	6.65	13.3

As with the diamond analysis, when catchment areas from multiple locations with associated scores are plotted on a map, a picture emerges that represents the cumulative level of service. **Where there are darker shades, the level of service is higher** for that particular Perspective. In this case (*Map R*), several areas of more concentrated level of service exist around Embrey Mill and the combination of Smith Lake and Patawomeck as well as the Pratt/McDuff overlap. In general, it can be said that residents in these areas have access to a greater number of rectangles and/or higher ranking rectangles than areas that appear lighter orange.

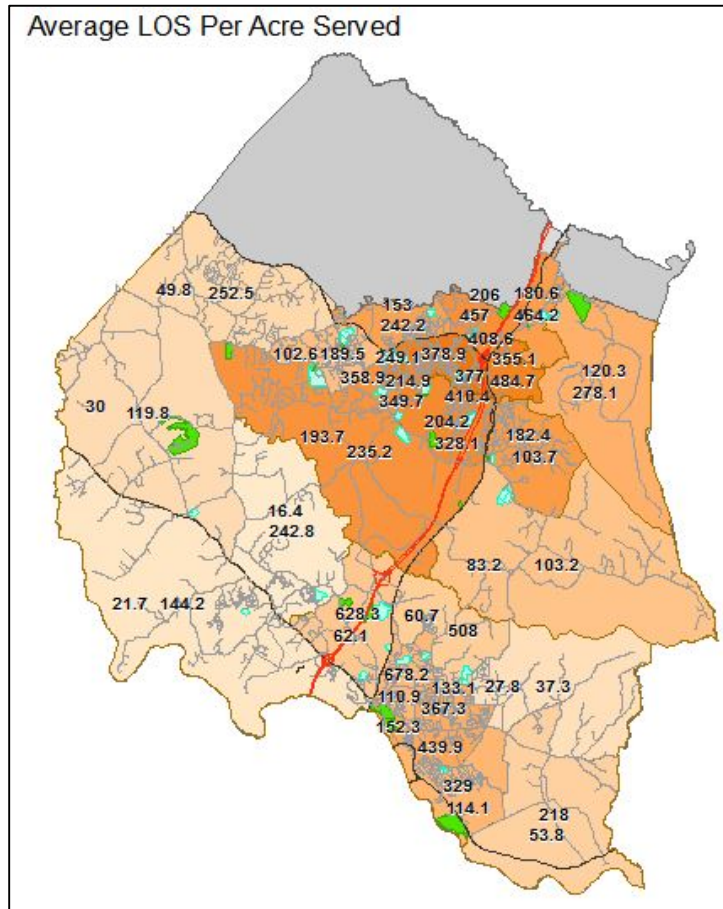
Map R: County Composite GRASP® analysis of rectangle fields



Analysis Nineteen – GRASP® Average Level of Service per Acre by Census Tract

The following map (**Map S**) represents the average GRASP® level of service per acre by census tract. In this map, the higher the average LOS the darker the orange gradient. The GRASP® average LOS per acre score is shown as a label for reference. This map shows concentrations of higher scores in the central to north central regions of the county.

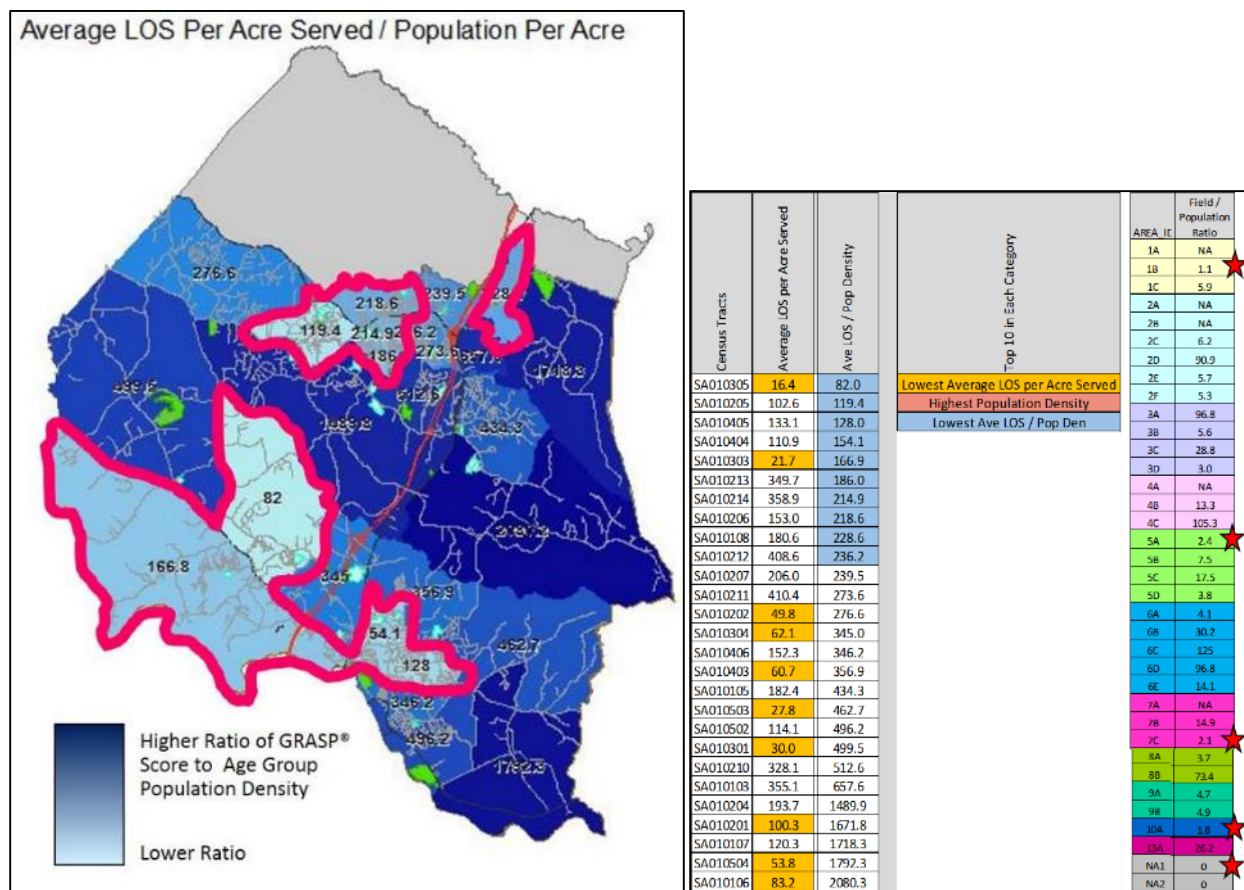
Map S: GRASP® Average Level of Service per acre by census tract



Analysis Twenty – GRASP® Correcting for Population Density of Census Tracts

The blue shaded map (**Map T**) and supporting tables combines population density analysis with the average level of service per acres by census tract to give a ratio of GRASP® score per capita. Areas of dark blue indicate a higher level of service per capita compared to lighter shades of blue. Remember, GRASP® takes into account not only quantity of fields, but also the quality of those fields. This analysis also includes GRASP® scoring for school rectangles. There is consistency in areas identified in **Map P** and in **Map T**.

Map T: Average GRASP® LOS per acre served to 5-19 age group population ratio for rectangle fields



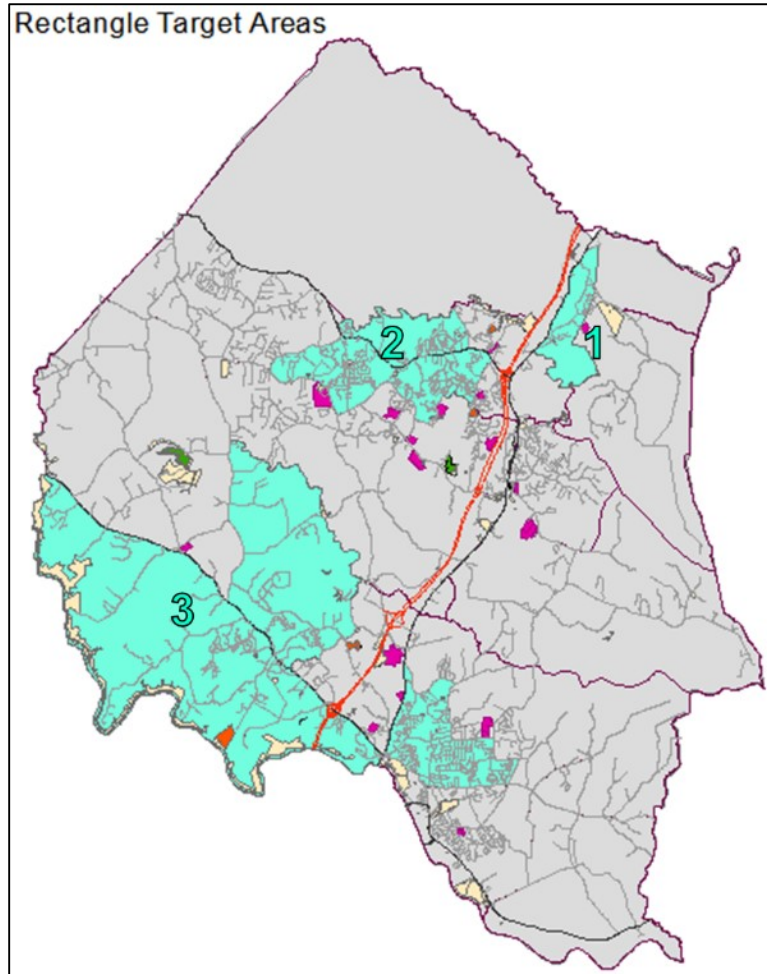
A comparison of this analysis to the previous analysis shows some consistency in areas that are lower in level of service for rectangles. This would indicate that not only are there more residents in these areas, but that these resident have access to fewer rectangles per capita and the value of those rectangles available is lower than in other areas.

The previous tables represent the mapped data in tabular format for comparison. The ten lowest values are represented in the third column by blue fill and the red stars in the second table represent the areas on the map outlined in red.

E. Rectangle Findings Summary

Map U, below, is a simplification of the above analysis that identifies Rectangle Target Areas as areas currently in the lowest in Average GRASP® LOS per acre served to 5-19 age group population ratio.

Map U: Rectangle Field target areas



- Low Scoring Rectangles exists in all three areas (1, 2, and 3). Upgrades or improvements to these fields would increase level of service.
- Several parks in or adjacent to target areas have potential for additional rectangles.
- School Rectangles are available and utilized in Target Areas.
- Vacant county owned land also exist within or adjacent to Area 1, 2, and 3.

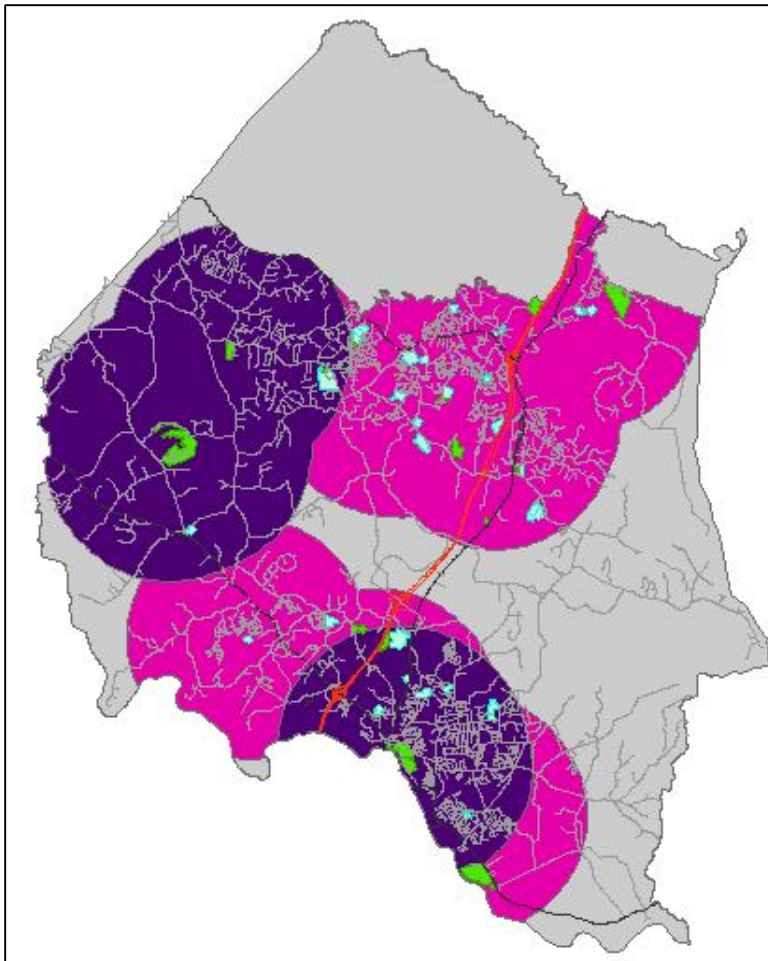
Access to Rectangle Sports Practice Areas

Access to practice fields for rectangle sports was identified as an issue in both focus groups meetings and meetings with staff. The following limited analysis was done to examine access to the practice areas currently available throughout the County. As discussed during the inventory assessment portion of this document, there are not currently any full size practice fields available through Stafford County Parks and Recreation. The following analysis was completed based on the inventory of the available 90'x 90' designated practice fields.

Analysis Twenty One – 3 Mile Access to Rectangle Sports Practice Areas

Residents or users within the dark purple area have access to at least one practice area within three miles. This area accounts for a three mile radius on all park with practice areas and may also include access to a school with a practice area. Residents in the pink area are limited to school practice areas only and must travel further than three miles to a park practice area. Areas gray in color show that access to any practice area is greater than three miles away.

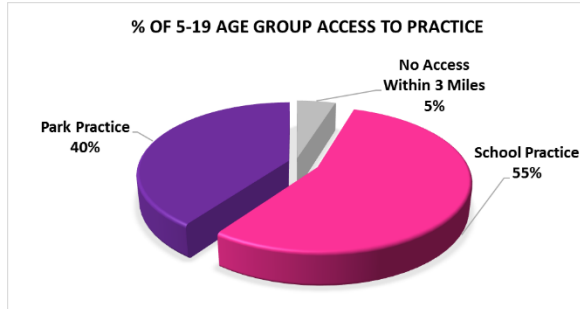
Map V: 3 mile access to Park and School rectangle practice fields



Analysis Twenty-Two – 95% of 5-19 Age Group Have access to a Practice Area within 3 Miles

Overall, 95 percent of the residents have access to a park or school practice area within 3 miles of home as shown in **Figure 4**.

Figure 4: Population Analysis of access to Park and School rectangle sports practice fields



Rectangle Sports Practice Area Findings Summary

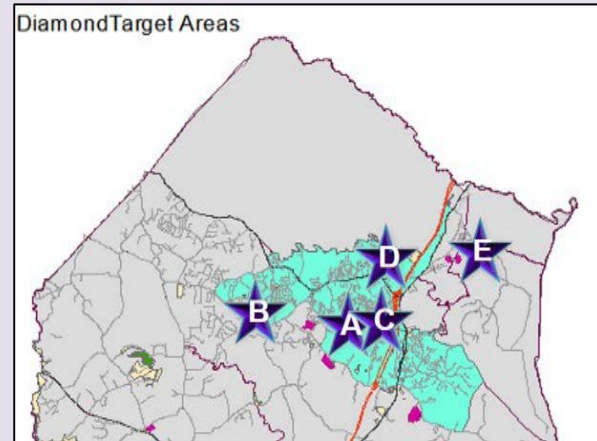
- Practice areas are lacking in the central portion of the county.
- Gray areas have proximity greater than three miles from existing parks or schools with practice areas.
- Vacant county owned lands do not exist within the gray areas.

F. Recommendations – Meeting Future Athletic Field Demand

The following recommendations focus on improvements and possible additions to the athletic field inventory in Stafford County. Some recommendations contradict each other by suggesting adding both diamond and rectangle fields at the same location. This is done to allow the County the flexibility to choose the appropriate action based on demand for a particular type of field. Each actionable item has a corresponding CIP component. However, due to the complexity of understanding full financial impact, CIP costs are undeterminable without further study.

Goal 2: Improve Conditions and Access Diamond Fields

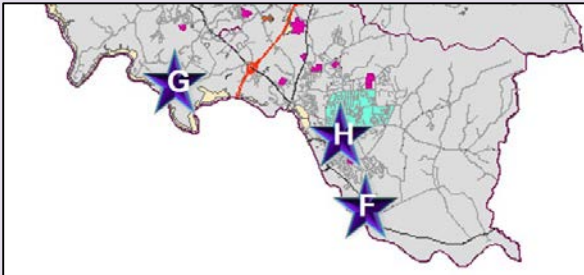
Objective 2.1: Improve conditions and access to diamond fields (1).



Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
2.1.a: Autumn Ridge Park  - Add lights (May not be possible due to utility easement). - Investigate development opportunities and create a site master plan for additional diamond field on undeveloped east side.	Stafford County Parks, Recreation & Community Facilities Department	Lights Site Master Plan (Including H.H. Poole below) Development Costs	Mid to Long Term
2.1.b: H.H. Poole M.S.  - Work with schools to relocate diamond field to the location of current practice fields to create complex with Autumn Ridge Park. - Add lights (May not be possible due to utility easement).	Stafford County Parks, Recreation & Community Facilities Department Stafford County School District	Relocation Lights	Mid to Long Term

2.1.c: Mountain View Property Properties  B - Investigate development opportunities and create a site master plan to add diamond fields. - Development of two diamonds and associated parking.	Stafford County Parks, Recreation & Community Facilities Department	Development Costs – TBD Site Master Plan Two Diamond Fields	Mid to Long Term
2.1.d: Vacant Parcels   C D Evaluate Vacant Lands to determine feasibility to add two or more diamond fields. Vacant land #3 is behind Autumn Ridge, as seen on map on page 30, and vacant land #4 is Juggins Road, new Moncure Elementary School site. (We do not recommend that single fields be developed).	Stafford County Parks, Recreation & Community Facilities Department	Evaluation – Staff Time Master Plan	Mid to Long Term
2.1.e: Patawomeck Park  E Add two diamond fields to make this a suitable complex for tournament use.	Stafford County Parks, Recreation & Community Facilities Department	Two Diamond Fields plus parking expansion	Mid to Long Term

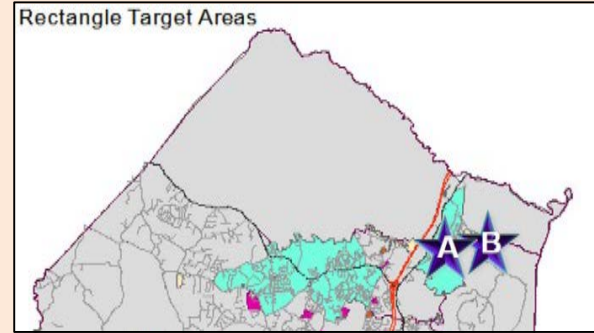
Objective 2.2: Improvement to conditions and access to diamond fields (2).



Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
2.2.a: Duff McDuff Park  Investigate development opportunities for additional diamond fields including lights.	Stafford County Parks, Recreation & Community Facilities Department	Cost of Diamond Fields plus parking expansion Lights	
2.2.b: Rocky Pen Run  Investigate long term development opportunities for additional diamond fields including lights (may be good location for adult softball).	Stafford County Parks, Recreation & Community Facilities Department	Cost of Diamond Fields plus parking expansion Lights	Long-Term
2.2.c: Fredericksburg Inactive Landfill Site  Investigate development opportunities for additional diamond fields.	Stafford County Parks, Recreation & Community Facilities Department	Development Costs – TBD	Long-Term

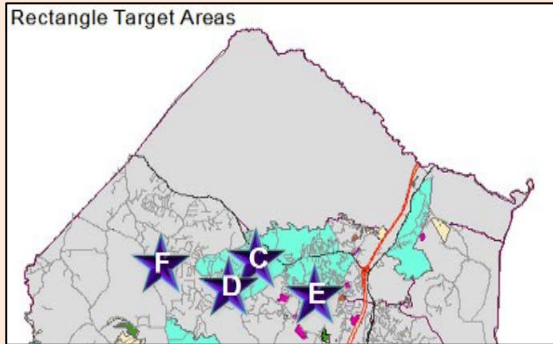
Goal 3: Improve Conditions and Access to Rectangle Fields

Objective 3.1: Improve conditions and access to rectangle fields (1)

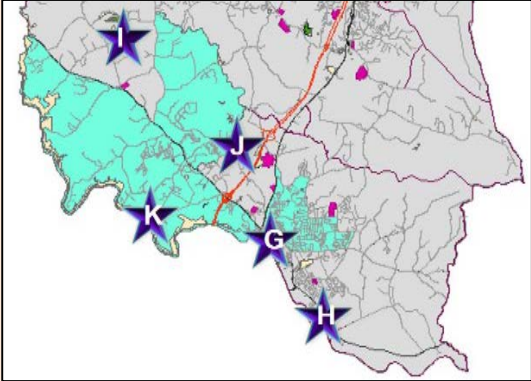


Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
3.1.a: Carl Lewis  Improve field conditions and create dedicated practice area or emerging sport field.	Stafford County Parks, Recreation & Community Facilities Department	Field Improvements	Short-Term
3.1.b: Patawomeck Park  - Phase I – Convert one or both fields to synthetic turf w/lights and address field crown. - Phase II – Investigate development opportunities for additional rectangle fields and parking.	Stafford County Parks, Recreation & Community Facilities Department	Synthetic Turf Field Lights Phase II – TBD	Mid to Long Term

Objective 3.2: Improve conditions and access to rectangle fields (2).



Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
3.2.a: Vista Woods Park/Garrisonville Elementary C Investigate development opportunities and create a site master plan to connect these sites to create a multi-field complex to include parking and restrooms.	Stafford County Parks, Recreation & Community Facilities Department	Site Master plan Development Costs – TBD	Mid to Long Term
3.2.b: Mountain View Property and Mountain View High School D - Investigate development opportunities for 2-3 new synthetic turf fields w/lights, or natural grass fields/no lights. - Investigate development opportunities for additional rectangle fields on the property on S.E. corner of Mountain View HS.	Stafford County Parks, Recreation & Community Facilities Department	Synthetic Turf Field Lights Natural Turf - New Development Costs - TBD	Mid to Long Term
3.2.c: Autumn Ridge/H.H. Poole M.S. E Add additional rectangle field to Autumn Ridge Park (East Side) and connect with H.H. Poole M.S. to create a multi-field complex.	Stafford County Parks, Recreation & Community Facilities Department	Synthetic Turf Field Lights Natural Turf Development Costs, Connection w/H.H. Poole M.S. - TBD	Mid to Long Term

Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
3.2.d: Willowmere Park  Investigate long term development opportunities for adding synthetic turf to fields w/lights.	Stafford County Parks, Recreation & Community Facilities Department	Synthetic Turf Field Lights	Long Term
Objective 3.3: Improve conditions and access to rectangle fields (3). 			
Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
3.3.a: John L. Pratt Park / Duff McDuff Park   - Investigate development opportunities for addition synthetic fields w/lights or natural turf fields without lights. - Consider development of Phase II at Duff McDuff Park with rectangle fields as an alternative.	Stafford County Parks, Recreation & Community Facilities Department	Synthetic Turf Field Lights Natural Turf Phase II - TBD	Mid to Long Term
3.3.b: Curtis Memorial Park  - Redevelop park into one good diamond field and one good rectangle field. - Use for emerging sports. - Investigate development opportunities for additional fields.	Stafford County Parks, Recreation & Community Facilities Department	Diamond Fields Natural Turf Rectangle Fields plus site improvements Development – TBD	Mid to Long Term

Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
3.3.c: Vacant Lands   - Investigate development opportunities for rectangle fields at Mussleman Park. - Investigate long term development opportunities for rectangle fields at Rocky Pen Run.	Stafford County Parks, Recreation & Community Facilities Department	Development Costs - TBD	Long-Term

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VII. Sport Groups/Field Allocation Summary/ Supporting Trends

Stafford County parks and school fields provide team activities to 7,500 youth participant slots and 1,500 adult participant slots annually. This section provides a brief summary about the groups that utilize athletic fields and how fields are allocated to them.

A. Stafford County Sports Groups/Associations

Stafford Lacrosse Association (SLA)

The SLA provides recreational lacrosse to boys ages six to thirteen and girls ages six to eight, as well as competitive lacrosse to both boys and girls ages nine to fourteen. Lacrosse is primarily a spring sport (mid-March through May). Total participation for 2013 was 388. Additional 2013 information is as follows:

- Boys Recreational
 - Number of 2013 teams – 7
 - Number of games – 64
- Girls Recreational
 - Number of 2013 teams – 3
 - Number of games – 12
- Boys Competitive
 - Number of 2013 teams – 9
 - Number of games – 81
- Girls Competitive
 - Number of 2013 teams – 5
 - Number of games – 40

The SLA primarily uses St. Clair Park fields for games and various elementary schools fields for practices. While the SLA has enough fields for games and practices at this time, the quality of their games fields are below that standard that the SLA feels they need to be. The SLA would like access to fields at Smith Lake Park, Garrisonville Elementary Schools, Patawomeck Park, and middle schools fields.

Stafford Soccer Association (SSA)

The SSA provides recreational soccer to boys and girls ages five to nineteen and competitive soccer to boys and girls ages nine to nineteen. Soccer is both a spring and fall sport. Total participation for 2013 was 3,662. Additional 2013 information is as follows:

- Competitive Soccer
 - Number of teams – 54
 - Number of games – 432
- Recreational Soccer
 - Number of teams – 167
 - Number of games – 1,113

The SSA says that it lacks the sufficient number of fields to efficiently schedule its teams. SSA estimates that five additional full size fields are needed. Additional full size fields would also allow for improved practice experiences for the older age groups.

Stafford County Football

The Stafford County Parks, Recreation, and Community Facilities Department offers youth tackle football programs for boys ages seven to thirteen. The football program is operated during the fall months. Total participation for 2013 was 550. Additional 2013 information is as follows:

- Number of teams – 25
- Number of games – 101

Overall fields used for football are adequate for games and practices. The football program has enough fields for games but does not have enough fields to conduct practices, and additional ten locations would improve the situation. Many times, football teams are utilizing space outside of fenced and lighted baseball fields for practices. Having more access to Dixon Smith Middle School would improve scheduling for games.

Stafford Baseball Association (SBA)

The SBA provides baseball and softball opportunities to boys and girls respectively for ages five to twelve (Cal Ripken League) and ages thirteen to eighteen (Babe Ruth League). Baseball and softball programs are operated during the spring, summer, and fall months. Total participation for 2013 was 1,900 for baseball and 1,000 for softball.

- SBA manages 140 regular season teams and 14 District teams annually

Overall field conditions are good with Smith Lake being the best. Fields can be greatly affected by weather conditions such as rain, as some do not drain properly and may be unplayable for days after a heavy storm. Having more lighted fields would greatly improve the SBA's ability to provide better service to its teams. SBA estimates that four additional fields are needed to meet demand. The league says it is turning participants away due to the lack of fields.

Stafford County Adult Softball

The Stafford County Parks, Recreation, and Community Facilities Department offers adult softball programs during the spring and fall months. Total adult participation for 2013 is 1,500 individuals. Additional 2013 information is as follows:

- Number of teams – 60
- Number of games – 325

Overall, fields used for adult softball are adequate for games and practices. However, the County is limited to the number of teams it can organize because of field access limitations. Department programmers suggested that access to two more fields would allow for a more efficient scheduling of the league.

B. Field Utilization

In 2013, the various user groups utilized over 18,000 hours of athletic field use. County fields provided approximately 63 percent of field use and schools provided approximately 37 percent field use.

Rectangle Fields Utilization

The primary users of rectangle fields include lacrosse, soccer, football, and rugby. As shown in **Table 14**, soccer utilizes the bulk of rectangle field hours followed by youth football, lacrosse, and rugby.

Table 14: 2013 Rectangle Field Allocation

Activity	Total County Field Hours	Total School Field Hours	Total Hours	% of Total Field Rectangle Field Hours Allocated in 2013
Youth LAX	162	212	374	4.1%
Youth Soccer	4,257	3,034	7,291	79.5%
Youth Football	898	541	1,439	15.7%
Rugby	63.5	0	64	0.8%

Youth football receives the highest allocation of field hours per team, followed by youth soccer and youth lacrosse, as shown in **Table 15**.

Table 15: Rectangle Field Usage per Number of Teams

Activity	Total Hours	Total Teams	Field Hour Allocation per Team
Youth LAX	374	24	13.54
Youth Soccer	7,291	221	32.99
Youth Football	1,439	25	57.56

Diamond Field Utilization

The primary users of diamond fields are youth baseball and softball and adult softball. As shown in **Table 16**, youth baseball utilizes the bulk of diamond field hours followed by youth softball and adult softball.

Table 16: Diamond Field Allocation

	Total County Field Hours	Total School Field Hours	Total Hours	% of Total Field Diamond Field Hours Utilized in 2013
Youth Baseball	4,915.5	1,708.5	6,624	76.3%
Youth Softball	808	754.5	1,563	18.0%
Adult Softball	332	164	496	6.6%

Youth baseball/softball receives the highest allocation of field hours per team followed by adult softball, as shown in **Table 17**.

Table 17: Diamond Field Usage per 100 Participants

	Total Hours	Total Teams	Field Hour Allocation per Team
Youth Baseball/Softball	6,624	154	43.04
Adult Softball	496	60	8.2

C. Sport User Group Summary

Stafford County parks and school fields provide team activities to 7,500 youth participant slots and 1,500 adult participant slots annually. Youth soccer has the largest participation levels and is also allocated the largest amount of rectangle field hours. Youth lacrosse receives the lowest field allocation per team rectangle fields. Youth baseball has largest participation for diamond sports and receives the largest amount of diamond field hours. Adult softball receives the lowest field allocation per team.

D. Influencing Trends: Team Sports and Youth and Adult Activities

The following information highlights relevant recreation trends from various sources that may influence Stafford County athletic field development planning for the next ten years.

Team Sports Trends

In 2009, an article in the *Wall Street Journal* observed that in recent years lacrosse has become one of the country's fastest growing team sports. Participation in high school lacrosse has almost doubled in this decade. An estimated 1.2 million Americans over age seven played lacrosse in 2009.¹ A 2011 report entitled, "U.S. Trends in Team Sports" finds that lacrosse and other niche team sports are continuing to experience strong growth for youth and adults.² The Stafford Lacrosse Association is a relative newcomer to the Stafford County youth sports scene and has a relatively low number of participants compared to other rectangle fields based sports. Based on national trends, the County should expect to see an increase in the number of participants and therefore an increase in the demand for fields.

¹ Evans and Trachtenberg, "Lacrosse Muscles Its Way West," *Wall Street Journal*, May, 2009

² "2011 Preview: U.S. Trends in Team Sports, Fall 2011", SMGA, 2011

The Sports & Fitness Industry Association (SFIA) (formerly Sporting Goods Manufacturers Association) produces a yearly report on sports, fitness, and leisure activities in the US. The findings in the 2013 Report presented in **Table 18** are pertinent to team sports.³ With the exception of fast pitch softball, field hockey, lacrosse, rugby, and ultimate Frisbee, participation was down over the 2011-2012 period. This does not necessary reflect current conditions in Stafford County regarding baseball and soccer. The County has seen steady growth over the last 10 years and will continue to do so for the foreseeable future. With this growth, the County will likely see an increase in participation in baseball and softball, although it is possible that participation may not be as high as it once was.

Table 18: Select Team Sports Total Participation 2007-2012 for ages 6+ (in thousands)

Sport	2007	2008	2009	2010	2011	2012	Change 2011/ 2012	2 year AAG*	5 year AAG
Baseball	16,058	15,539	14,429	14,198	13,561	12,976	-4.4%	-4.4%	-4.2%
Field Hockey	1,127	1,122	1,092	1,182	1,147	1,237	7.8%	2.4%	2.0%
Football (Flag)		7,310	6,932	6,660	6,325	5,865	-7.3%	-6.0%	
Football (Touch)		10,493	9,726	8,663	7,684	7,295	-5.1%	-8.2%	
Football (Tackle)	7,939	7,816	7,243	6,850	6,448	6,220	-3.5%	-4.7%	-4.7%
Lacrosse	1,058	1,092	1,162	1,423	1,501	1,607	7.1%	6.3%	8.9%
Rugby	617	654	720	940	850	887	4.4%	-2.6%	8.3%
Soccer (Outdoor)	13,708	13,966	13,957	13,883	13,667	12,944	-5.3%	-3.4%	-1.1%
Softball (Fast Pitch)	2,345	2,331	2,476	2,513	2,400	2,624	9.4%	2.4%	2.4%
Softball (Slow Pitch)	9,485	9,660	9,180	8,477	7,809	7,411	-5.1%	-6.5%	-4.8%
Ultimate Frisbee	4,038	4,459	4,636	4,571	4,868	5,131	5.4%	6.0%	5.0%

*Average Annual Growth | Source: Sports & Fitness Industry Association 2013

General Programming

One of the most common concerns in the recreation industry is creating innovative programming to draw participants into facilities and services. Once in, participants recognize that the benefits are endless. According to *Recreation Management* magazine's "2013 State of the Industry Report,"⁴ the most popular programs offered by Parks and Recreation survey respondents include holiday events and other special events (64.2 %), fitness programs (61.4%), educational programs (58.9), day camps and summer camps (55.2%), **youth sports teams (54.3%)**, **sports tournaments and races (49.2 %)**, mind-body/balance programs (49.1%), swimming programming (teams and lessons) (48.5%), adult sports teams (47.8 %), sports training (44.1%), arts and crafts (42.7%), and programs for active older adults (40.9%).

³ "2013 Sports, Fitness and Leisure Activities Topline Participation Report", Sporting Goods Manufacturers Association (renamed Sports and Fitness Industry Association in 2012, <http://www.sfia.org/reports/all/>)

⁴ Emily Tipping, "2013 State of the Industry Report, Trends in Parks and Recreation", *Recreation Management*, June 2013.

The report also suggested slightly more than three in ten (30.2%) respondents indicated that they are planning to add additional programs at their facilities over the next three years. The most common types of programming that they are planning to add include:

1. Educational programs (up from No. 5 on 2012 survey)
2. Fitness programs (up from No. 3)
3. Mind-body/balance programs – yoga, tai chi, Pilates, or martial arts (up from No. 6)
4. Day camps and summer camps (up from No. 10)
5. Holiday events and other special events (up from No. 7)
6. Environmental education (down from No. 1)
7. Teen programming (down from No. 2)
8. Active older adults programming (down from No. 4)
9. **Sports tournaments** or races (not on the 2012 survey)
10. Sport training (not on the 2012 Survey)

Off the top 10 list for new programming from 2012 are **adult sport teams** and performing arts.

Administration Trends for Recreation and Parks

Municipal parks and recreation structures and delivery systems have changed, and more alternative methods of delivering services are emerging. Certain services are being contracted out, and cooperative agreements with non-profit groups and other public institutions are being developed. Newer partners include the **schools**, the healthcare system, social services, the justice system, education, the corporate sector, and community service agencies. These types of partnerships reflect a broader interpretation of the mandate of parks and recreation agencies, along with the increased willingness of other sectors to work together to address community issues. The relationship with health agencies is vital in promoting wellness.

The Stafford County Sports Association and the Parks and Recreation Department rely a great deal on school district fields for youth and adult sports. This relationship is expected to continue, and any agreements should be made as strong and beneficial as possible for both parties. The traditional relationship with education and the sharing of facilities through joint-use agreements is evolving into cooperative planning and programming aimed at addressing youth inactivity levels and community needs.

Listed below are additional administrative national trends:

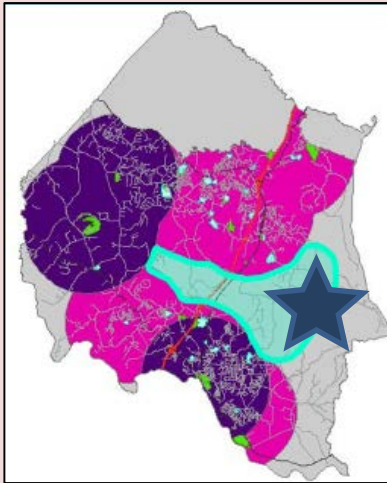
- Level of subsidy for programs is lessening and more “enterprise” activities are being developed, thereby allowing subsidy to be used where deemed most appropriate.
- Information technology allows for better tracking and reporting.
- Pricing is often determined by peak, off-peak, and off-season rates.
- More agencies are partnering with private, public, and non-profit groups.

VIII. Recommendations – Practice Fields, Emerging Sports and Long Term Growth

The following recommendations focus on adding practice fields where most needed and strategies for allocating fields for emerging sports.

Goal Four: Improve Conditions and Access to Practice Fields

Objective 4.1: Add practice facilities where needed.



Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
4.1.a: Add practice fields in central parts of the county where possible.	Stafford County Parks, Recreation & Community Facilities Department	Staff Time & Additional Maintenance Budget Allocation	Short-Term
4.1.b: Determine opportunities add practice fields when possible county wide.	Stafford County Parks, Recreation & Community Facilities Department	Staff Time	Ongoing
4.1.c: As new synthetic turf fields come online, allow use for practice.	Stafford County Parks, Recreation & Community Facilities Department Athletic Field User Groups	Staff Time	Ongoing
4.1.e: Allow older age groups to use full 90 x 90 practice areas periodically.	Stafford County Parks, Recreation & Community Facilities Department Athletic Field User Groups	Staff Time	Short-Term

Goal Five: Accommodate Emerging Sports and Adult Sports

Objective 5.1: Improve field access for emerging sports (i.e. lacrosse, field hockey, etc.) and adult sports (i.e. softball).

Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
5.1.a: Allocate additional fields access (diamond and rectangle) on low use county and school fields.	Stafford County Parks, Recreation & Community Facilities Department Athletic Field User Groups	Staff Time	Short-Term
5.1.b: Allocate rectangle field access on new fields being developed at Emery Mill especially on synthetic turf fields.	Stafford County Parks, Recreation & Community Facilities Department Athletic Field User Groups	Staff Time	Short-Term
5.1.c: Amend fields use agreement with School District (see Goal 1, Objective 1.3) to gain additional access to school fields.	Stafford County Parks, Recreation & Community Facilities Department Athletic Field User Groups	Staff Time	Short-Term
4.1.d: Allocate diamond field access on new fields being developed at Chichester Park.	Stafford County Parks, Recreation & Community Facilities Department Athletic Field User Groups	Staff Time	Short-Term
4.1.e: Allocate rectangle field access on new fields being developed at Embrey Mill Park.	Stafford County Parks, Recreation & Community Facilities Department Athletic Field User Groups	Staff Time	Short-Term

Goal 6: Plan for the long term

Objective 6.1: Identify athletic field needs based on population growth.

The following table shows how many athletic fields (rectangle and diamonds) would be needed in years 2017, 2020, and 2022 to maintain the current level of service that serves the 5 – 19 age group today. This age cohort represents approximately 85 percent of current field usage. There are many conditions that can alter these projections, and they should be reassessed on an ongoing basis.

Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
6.1.a: Plan for future population growth.	Stafford County	Staff Time	Short – Long Term

Based on 5-19 Age Group							
Stafford County, VA							
	Population	County Rectangle Fields (Including 6 Fields at Emory Mill)	School Rectangle Fields (Non H.S.)	Total Rectangle Fields	County Diamond Fields (Including 5 Fields at Chichester)	School Diamond Fields	Total Diamond Fields
INVENTORY - 2013							
Total		28	22	50	23	22	45
CURRENT RATIO PER POPULATION							
POPULATION 2012 Ages 5-19	31,760						
Components per 1000 Population		0.88	0.69	1.57	0.72	0.69	1.42
Population per each component		1,134	1,444	635	1,381	1,444	706
POPULATION 2017 Ages 5-19	33,474						
% Increase	5.40%						
Total Needed to Maintain Existing Level of Service		29.51	23.19	52.70	24.24	23.19	47.43
Total number to add to existing 2013 Inventory		1.51	1.19	2.70	1.24	1.19	2.43
POPULATION 2022 Ages 5-19	35,282						
% Increase	5.40%						
Total Needed to Maintain Existing Level of Service		31.11	24.44	55.54	25.55	24.44	49.99
Total number to add to existing 2013 Inventory		3.11	2.44	5.54	2.55	2.44	4.99

Based on ESRI Projections

IX. General Recommendations

The success of any plan is directly related to its implementation. The following can provide guidance on how to successfully approach the implementation of this plan.

- Assign staff to be responsible for fulfilling the recommendations.
- Identify specific action steps.
- Gain Board/Commission input and/or support (as necessary).
- Set timeframe, set deadlines, and identify key decision points.
- Assess the resources needed for implementation.
- Identify timing for funding approval.
- Incorporate into the department's annual work plan.
- Assign tasks for the department's annual work plan.
- Assess and make adjustments to department workloads, roles, and responsibilities.
- Incorporate tasks into individual personnel goals and annual evaluations.

Inform and Empower Staff to Implement Plan Recommendations

Another key to success is to ensure that all levels of staff are informed of and are set up to work together to implement the recommendations and strategies of the plan.

- Inform all levels of staff of the direction of the plan and allow for input, encouraging buy-in and participation from all staff members.
- Provide cross-departmental staff teams/team members (as appropriate) with education, development opportunities, necessary equipment, and supplies.
- Seek input from appropriate advisory committees and the public.

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Appendix A – Scoring Criteria

Scoring Criteria

Site Amenities Scoring Key:		1	2	3
Restroom				
	Porta Let	1		
	Plumbed Restroom		2	
	Plumbed Restroom and Easily Accessible from All Fields			3
Parking				
	Available Onsite but Inadequate	1		
	Available Onsite Generally Meets Needs		2	
	Available Onsite and Meets Needs Fully			3
Lighting				
	Egress Lighting Onsite but Inadequate	1		
	Egress Lighting Onsite Generally Meets Needs		2	
	Egress Lighting Onsite Meets Needs Fully			3
Maintenance Storage				
	Maintenance Yard but not Fully Enclosed	1		
	Maintenance Yard Enclosed and Secured		2	
	Maintenance Yard Enclosed and Secured with Permanent Building			3
Drinking Water				
	Water Fountain Available at Site	1		
	Water Fountain Located Proximate to Fields		2	
	Water Fountain Located in Each Dugout or at Each Field			3
Concessions				
	Concessions Onsite but Not Near Fields	1		
	Concessions Located Near Fields		2	
	Concessions Located Near All Fields and Fully Meets Needs			3
Playground				
	Playground Located Onsite but Not Near Fields	1		
	Playground Located Near Fields		2	
	Premium Playground Located Near Fields			3

Rectangle Scoring Key:	1	2	3
Use/Access Percent TBD			
<i>Could be 0-100% depending on Park and Rec access to field programming</i>			
Overall Field Condition			
Poor Quality Field	1		
Good Quality Field		2	
Excellent Quality Field			3
Turf			
Poor Quality Turf	1		
Good Quality Turf		2	
Excellent Quality Turf			3
Synthetic Turf			
Needs Replaced	1		
Good but Beyond Half Life		2	
Excellent/New (First Half of Life)			3
Irrigation			
Quick Coupler Irrigation	1		
Underground Sprinkler System		2	
Programmable Sprinkler System			3
Lighting			
Poor Lighting	1		
Adequate Lighting		2	
Programmable Field Lighting			3
Bleachers			
Old Bleachers (Often wood)	1		
Aluminum Bleachers		2	
Aluminum Bleachers with ADA seating			3
Team Storage			
Onsite but Not Near Fields or Inadequate	1		
Storage Located at Each Field		2	
Premium Team Storage at Each Field			3
Goals			
Older Square Face Goal Posts	1		
Soccer or Lacrosse Goals Onsite		2	
Round Non-Tip Goals			3
Issues with Field Runout (Width or Length)			
minor issues with runout area	-1		

Diamonds Scoring Key:		1	2	3
Use/Access Percent TBD				
<i>Could be 0-100% depending on Park and Rec access to field programming</i>				
Overall Field Condition				
	Poor Quality Field	1		
	Good Quality Field		2	
	Excellent Quality Field			3
Turf				
	Poor Quality Turf	1		
	Good Quality Turf		2	
	Excellent Quality Turf			3
Irrigation				
	Quick Coupler Irrigation	1		
	Underground Sprinkler System		2	
	Programmable Sprinkler System			3
Lighting				
	Poor Lighting	1		
	Adequate Lighting		2	
	Programmable Field Lighting			3
Bleachers				
	Old Bleachers (Often wood)	1		
	Aluminum Bleachers		2	
	Aluminum Bleachers with ADA seating			3
Team Storage				
	Team Storage Present but Inadequate	1		
	Team Storage Located Near Fields		2	
	Premium Team Storage Located at Each Field			3
Scoreboard				
	Inadequate Scoreboard	1		
	Limited Scoreboard		2	
	Premium Scoreboard			3
Electricity or Press Box				
	Electricity Onsite but Not Near Field	1		
	Electricity at Field		2	
	Press Box with Electricity			3
Infield Condition				
	Poor Quality Infield	1		
	Good Quality Infield (Limited Drainage Issues)		2	
	Excellent Quality Infield (Few Drainage Issues)			3
Backstop				
	Limited Backstop	1		
	Adequate Backstop		2	
	New Backstop			3
Dugout				
	Limited and Uncovered Dugout	1		
	Covered Dugout		2	
	Covered Dugout with Concrete Floor and ADA Access			3
Fencing				
	Limited Fencing or Aging Fencing	1		
	Adequate Fencing		2	
	New Fencing and Complete Field			3
Warm Up				
	General Area Available for Warm Up	1		
	Warm Up Area (Batting Cage Onsite)		2	
	Warm Up Area (Batting Cage Adjacent to Field)			3

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Appendix B – Field Rankings

Field Rankings - Park Rectangles

Park Name	Sum of All Amenities Scores	Park Amenities Modifier	Field Map ID	Sum of Field Scoring * Access Percentage	Rectangle Score * Park Amenities Modifier	Synthetic Field Access Premium Modifier	Modified Rectangle Score * Final Synthetic Modifier Added (x2)	Rank
Smith Lake Park	12	2.2	MP010	12	26.4	2	52.8	1
Smith Lake Park	12	2.2	MP009	12	26.4	2	52.8	
Patawomeck Park	9	1.9	MP006	16	30.4	1	30.4	3
Patawomeck Park	9	1.9	MP007	16	30.4	1	30.4	
Duff McDuff Green Mem. Park	10	2	MP003	14	28	1	28	5
Duff McDuff Green Mem. Park	10	2	MP004	14	28	1	28	
St. Clair Brooks Mem. Park	9	1.9	MP008	9	17.1	1	17.1	7
Willowmere Park	11	2.1	MP011	7	14.7	1	14.7	8
Willowmere Park	11	2.1	MP018	7	14.7	1	14.7	
Willowmere Park	9	1.9	MP017	7	13.3	1	13.3	
John Lee Pratt Mem. Park	9	1.9	MP005	6	11.4	1	11.4	11
John Lee Pratt Mem. Park	9	1.9	MP019	6	11.4	1	11.4	
John Lee Pratt Mem. Park	9	1.9	MP020	6	11.4	1	11.4	
John Lee Pratt Mem. Park	9	1.9	MP021	6	11.4	1	11.4	
John Lee Pratt Mem. Park	9	1.9	MP022	6	11.4	1	11.4	
Curtis Memorial Park	9	1.9	MP002	4	7.6	1	7.6	16
Autumn Ridge Park	4	1.4	MP001	5	7	1	7	17
River Road Park	2	1.2	MP012	4	4.8	1	4.8	18
Courthouse Community Center	1	1.1	MP014	4	4.4	1	4.4	19
Willowmere Park	11	2.1	PA002	2	4.2	1	4.2	20
Curtis Memorial Park	9	1.9	PA001	2	3.8	1	3.8	21
Carl Lewis Community Center	1	1.1	MP013	2	2.2	1	2.2	22
Vista Woods Field	0	1	MP015	2	2	1	2	23
Mountain View RD Frontage Property	0	1	MP016	0	0	1	0	24

Field Rankings - School Rectangles

School Name	Sum of All Amenities Scores	Park Amenities Modifier	Field Map ID	Type	Sum of Field Scoring * Access Percentage	Rectangle Score * Park Amenities Modifier	Synthetic Field Access Premium Modifier	Modified Rectangle Score * Final Synthetic Modifier Added (x2)	Rank
Widewater E.S.	7	1.7	SMP019	MP FIELD	6.5	11.05	1	11.05	1
Dixon-Smith M.S.	4	1.4	SMP004	MP FIELD	6	8.4	1	8.4	2
Garrisonville E.S.	4	1.4	SMP009	MP FIELD	4.5	6.3	1	6.3	3
Gayle M.S.	4	1.4	SMP010	MP FIELD	4.5	6.3	1	6.3	
Dixon-Smith M.S.	4	1.4	SMP005	MP FIELD	3.5	4.9	1	4.9	5
Drew M.S.	1	1.1	SMP006	MP FIELD	4	4.4	1	4.4	6
A.G. Wright M.S.	3	1.3	SMP001	MP FIELD	3	3.9	1	3.9	7
Melcher Center	1	1.1	SMP014	MP FIELD	3.5	3.85	1	3.85	8
Conway E.S.	5	1.5	SMP003	MP FIELD	2.5	3.75	1	3.75	9
Hartwood E.S.	3	1.3	SMP011	MP FIELD	2.5	3.25	1	3.25	10
Hartwood E.S.	3	1.3	SMP012	MP FIELD	2.5	3.25	1	3.25	
Rodney E. Thompson M.S.	2	1.2	SMP017	MP FIELD	2.5	3	1	3	12
Ferry Farm E.S.	4	1.4	SMP008	MP FIELD	2	2.8	1	2.8	13
Stafford E.S.	2	1.2	SMP018	MP FIELD	2	2.4	1	2.4	14
Margaret Brent E.S.	4	1.4	SMP013	MP FIELD	1.5	2.1	1	2.1	15
Drew M.S.	1	1.1	SMP007	MP FIELD	1.5	1.65	1	1.65	16
Park Ridge E.S.	4	1.4	SMP015	MP FIELD	1	1.4	1	1.4	17
H.H. Poole M.S.	4	1.4	SMP035	MP FIELD	0.7	0.98	1	0.98	18
Rodney E. Thompson M.S.	2	1.2	SMP016	MP FIELD	0.56	0.672	1	0.672	19
Winding Creek E.S.	3	1.3	SMP021	MP FIELD	0.5	0.65	1	0.65	20
Winding Creek E.S.	3	1.3	SMP022	MP FIELD	0.5	0.65	1	0.65	
Anthony Burns E.S.	3	1.3	SMP002	MP FIELD	1	1.3	1	1.3	21

Field Rankings – Park Diamonds

Park Name	Sum of All Amenities Scores	Park Amenities Modifier	Field Map ID	Sum of Field Scoring * Access Percentage	Diamond Score * Park Amenities Modifier	Overall Lighting Access Premium Modifier	Modified Diamond Score* Final Field Lighting Modifier Added (x1.5)	Rank
Smith Lake Park	12	2.2	PD011	33	72.6	1.5	108.9	1
Smith Lake Park	12	2.2	PD012	31	68.2	1.5	102.3	2
Smith Lake Park	12	2.2	PD010	28	61.6	1.5	92.4	3
Duff McDuff Green Mem. Park	10	2	PD005	29	58	1.5	87	4
Patawomeck Park	9	1.9	PD008	28	53.2	1.5	79.8	5
Duff McDuff Green Mem. Park	10	2	PD003	26	52	1.5	78	6
Duff McDuff Green Mem. Park	10	2	PD004	26	52	1.5	78	
Patawomeck Park	9	1.9	PD007	27	51.3	1.5	76.95	8
Willowmere Park	11	2.1	PD018	21	44.1	1.5	66.15	9
St. Clair Brooks Mem. Park	9	1.9	PD014	23	43.7	1.5	65.55	10
Willowmere Park	11	2.1	PD016	20	42	1.5	63	11
Willowmere Park	11	2.1	PD017	20	42	1.5	63	
St. Clair Brooks Mem. Park	9	1.9	PD013	21	39.9	1.5	59.85	13
Willowmere Park	11	2.1	PD015	16	33.6	1.5	50.4	14
Rowser Complex	4	1.4	PD009	21	29.4	1.5	44.1	15
Autumn Ridge Park	4	1.4	PD001	19	26.6	1	26.6	16
John Lee Pratt Mem. Park	9	1.9	PD006	9	17.1	1	17.1	17
Curtis Memorial Park	9	1.9	PD002	4	7.6	1	7.6	18

Field Ranking – School Diamonds

School Name	Sum of All Amenities Scores	Park Amenities Modifier	Field MAP ID	Sum of Field Scoring * Access Percentage	Diamond Score * Park Amenities Modifier	Overall Lighting Access Premium Modifier	Modified Diamond Score * Final Field Lighting Modifier Added (x1.5)	Rank
Colonial Forge H.S.	6	1.6	SD007	4.2	6.72	1.5	10.08	1
Dixon-Smith M.S.	4	1.4	SD012	7	9.80	1	9.80	2
Gayle M.S.	4	1.4	SD031	7	9.80	1	9.80	2
Brooke Point H.S.	5	1.5	SD013	3.78	5.67	1.5	8.51	4
North Stafford H.S.	6	1.6	SD021	3.5	5.60	1.5	8.40	5
Mountain View H.S.	4	1.4	SD028	3.64	5.10	1.5	7.64	6
Melcher Center	1	1.1	SD002	4.5	4.95	1.5	7.43	7
Stafford H.S.	2	1.2	SD003	4.06	4.87	1.5	7.31	8
Rodney E. Thompson M.S.	2	1.2	SD024	5.5	6.60	1	6.60	9
A.G. Wright M.S.	3	1.3	SD027	5	6.50	1	6.50	10
Drew M.S.	1	1.1	SD005	4.5	4.95	1	4.95	11
Hampton Oaks E.S.	4	1.4	SD010	3.5	4.90	1	4.90	12
Rodney E. Thompson M.S.	2	1.2	SD025	4	4.80	1	4.80	13
H.H. Poole M.S.	4	1.4	SD016	3	4.20	1	4.20	14
A.G. Wright M.S.	3	1.3	SD026	3	3.90	1	3.90	15
Hartwood E.S.	3	1.3	SD030	3	3.90	1	3.90	15
Stafford M.S.	1	1.1	SD017	3.5	3.85	1	3.85	17
Ferry Farm E.S.	4	1.4	SD011	2.5	3.50	1	3.50	18
Stafford E.S.	2	1.2	SD019	2.5	3.00	1	3.00	19
Falmouth E.S.	5	1.5	SD006	2	3.00	1	3.00	19
Colonial Forge H.S.	6	1.6	SD008	0.7	1.12	1	1.12	21
North Stafford H.S.	6	1.6	SD020	0.7	1.12	1	1.12	21

Appendix C – GRASP[®] History and Methodology

A. GRASP[®] (Geo-Referenced Amenities Standards Program)

Composite-Values Level of Service Analysis Methodology

Analysis of the existing parks, open space, trails, and recreation systems are often conducted in order to determine how the systems are serving the public. A Level of Service (LOS) has typically been defined in parks and recreation master plans as the capacity of the various components and facilities that make up the system to meet the needs of the public. This is often expressed in terms of the size or quantity of a given facility per unit of population.

Brief History of Level of Service Analysis

In order to help standardize parks and recreation planning, universities, agencies, and parks and recreation professionals have long been looking for ways to benchmark and provide “national standards” for how much acreage, how many ballfields, pools, playgrounds, etc., a community *should* have. In 1906 the fledgling “Playground Association of America” called for playground space equal to 30 square feet per child. In the 1970s and early 1980s, the first detailed published works on these topics began emerging (Gold, 1973, Lancaster, 1983). In time “rule of thumb” ratios emerged with 10 acres of parklands per thousand population becoming the most widely accepted norm. Other normative guides also have been cited as “traditional standards,” but have been less widely accepted. In 1983, Roger Lancaster compiled a book called, Recreation, Park and Open Space Standards and Guidelines, that was published by the National Recreation and Park Association (NRPA). In this publication, Mr. Lancaster centered on a recommendation, “that a park system, at minimum, be composed of a core system of parklands, with a total of 6.25 to 10.5 acres of developed open space per 1,000 population.” (Lancaster, 1983, p. 56) The guidelines went further to make recommendations regarding an appropriate mix of park types, sizes, service areas, and acreages, and standards regarding the number of available recreational facilities per thousand population. While the book was published by NRPA and the table of standards became widely known as “the NRPA standards,” **these standards were never formally adopted for use by NRPA.**

Since that time, various publications have updated and expanded upon possible “standards,” several of which have been published by NRPA. Many of these publications did benchmarking and other normative research to try and determine what an “average LOS” should be. It is important to note that NRPA and the prestigious American Academy for Park and Recreation Administration, as organizations, have focused in recent years on accreditation standards for agencies, which are less directed toward outputs, outcomes and performance, and more on planning, organizational structure, and management processes. **In essence, the popularly referred to “NRPA standards” for LOS, as such, do not exist.** The following table gives some of the more commonly used capacity “standards” today.

Commonly Referenced LOS Capacity “Standards”

Activity/ Facility	Recommended Space Requirements	Service Radius and Location Notes	Number of Units per Population
Baseball Official Little League	3.0 to 3.85 acre minimum 1.2 acre minimum	¼ to ½ mile Unlighted part of neighborhood complex; lighted fields part of community complex	1 per 5,000; lighted 1 per 30,000
Basketball Youth High school	2,400 – 3,036 vs. 5,040 – 7,280 s.f.	¼ to ½ mile Usually in school, recreation center or church facility; safe walking or bike access; outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings	1 per 5,000
Football	Minimum 1.5 acres	15 – 30 minute travel time Usually part of sports complex in community park or adjacent to school	1 per 20,000
Soccer	1.7 to 2.1 acres	1 to 2 miles Youth soccer on smaller fields adjacent to larger soccer fields or neighborhood parks	1 per 10,000
Softball	1.5 to 2.0 acres	¼ to ½ mile May also be used for youth baseball	1 per 5,000 (if also used for youth baseball)
Swimming Pools	Varies on size of pool & amenities; usually ½ to 2- acre site	15 – 30 minutes travel time Pools for general community use should be planned for teaching, competitive & recreational purposes with enough depth (3.4m) to accommodate 1m to 3m diving boards; located in community park or school site	1 per 20,000 (pools should accommodate 3% to 5% of total population at a time)
Tennis	Minimum of 7,200 s.f. single court area (2 acres per complex)	¼ to ½ mile Best in groups of 2 to 4 courts; located in neighborhood community park or near school site	1 court per 2,000
Volleyball	Minimum 4,000 s.f.	½ to 1 mile Usually in school, recreation center or church facility; safe walking or bike access; outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings	1 court per 5,000
Total land Acreage		Various types of parks - mini, neighborhood, community, regional, conservation, etc.	10 acres per 1,000

Comparison of Recent GRASP® project field ratios

The following table represent the ten most recent GRASP® master plan projects. In these examples, we see a wide range of population per field ratios. For example, the Tualatin Hills PRD has the best ratio of one rectangle per 1,337 of total population, while North Clackamas has one rectangle for every 12,880 people. Stafford County has one rectangle for every 2,700 population. Additional research was done to include locale comparable agencies. Albermarle County is an example of one of those comparable locales.

10 Most Recent GRASP® Master Plans								
State	City	Year of Study	Total Population	Rectangles	Total Population Per Rectangle	Diamonds	Total Population Per Diamond	Notes
OR	Corvallis	2011	54,462	15	3631	19	2866	Included no school fields
NC	Cary	2011	139,382	34	4099	33	4224	Included schools
OR	Tualatin Hills PRD	2012	224,627	168	1337	105	2139	Included schools, quantities were self reported
CA	Palm Springs	2013	44,468	8	5559	11	4043	2013 Update of 2010 Inventory, Permanent Residents, No schools fields
OR	North Clackamas	2012	115,924	9	12880	20	5796	District Fields (District overlays municipalities which have their own fields)
SC	Charleston County	2012	350,209	4	87552	4	87552	Mission restricts to rural provision (only at schools)
CO	Lafayette	2012	24,453	16	1528	11	2223	Included schools, many diamonds and rectangles overlap
MO	Liberty	2013	56,041	38	1475	35	1601	Study area based on school district
CO	Sterling	2013	14,777	10	1478	9	1642	Included schools except high school
NM	Farmington	2013	46,816	14	3344	23	2035	Included programmed school fields
VA	Stafford County	2014	135,000	50	2700	45	3000	Included programmed school fields
VA	Albermarle County	2014	100,930	38	2656	33	3058	Not a GRASP® Project. Self reported numbers. Includes schools
					3803		2957	Average excluding Charleston County as extreme

High
Low

Sources:

David N. Ammons, *Municipal Benchmarks - Assessing Local Performance and Establishing Community Standards*, 2nd Ed., 2002

Roger A. Lancaster (Ed.), *Recreation, Park and Open Space Standards and Guidelines* (Alexandria, VA: National Recreation and Park Association, 1983), pp. 56-57.

James D. Mertes and James R. Hall, *Park, Recreation, Open Space and Greenways Guidelines*, (Alexandria, VA: National Recreation and Park Association, 1996), pp. 94-103.

In conducting planning work, it is key to realize that the above standards can be valuable when referenced as “norms” for capacity, but not necessarily as the target standards for which a community should strive. Each community is different and there are many varying factors which are not addressed by the standards above. For example:

- Does “developed acreage” include golf courses”? What about indoor and passive facilities?
- What are the standards for skateparks? Ice Arenas? Public Art? Etc.?
- What if it’s an urban land-locked community? What if it’s a small town surrounded by open Federal lands?
- What about quality and condition? What if there’s a bunch of ballfields, but they haven’t been maintained in the last 10 years?
- And many other questions....

GRASP®

In order to address these and other relevant questions, a new methodology for determining Level of Service was developed. It is called a **composite-values methodology** and has been applied in communities across the nation in recent years to provide a better way of measuring and portraying the service provided by parks and recreation systems. Primary research and development on this methodology was funded jointly by GreenPlay, LLC, a management consulting firm for parks, open space and related agencies, Design Concepts, a landscape architecture and planning firm, and Geowest, a spatial information management firm. The trademarked name for the composite-values methodology process that these three firms use is called **GRASP® (Geo-Referenced Amenities Standards Program)**. For this methodology, capacity is only part of the LOS equation. Other factors are brought into consideration, including *quality, condition, location, comfort, convenience, and ambience*. **For the purposes of the Stafford County Parks Utilization Plan, Phase 1: Athletic Fields the process was modified as described in the document.**

To do this, parks, trails, recreation, and open space are looked at as part of an overall infrastructure for a community made up of various components, such as playgrounds, multi-purpose fields, passive areas, etc. The ways in which the characteristics listed above affect the amount of service provided by the components of the system are explained in the following text.

- Quality** – The service provided by anything, whether it is a playground, soccer field, or swimming pool is determined in part by its quality. A playground with a variety of features, such as climbers, slides, and swings provides a higher degree of service than one with nothing but an old teeter-totter and some “monkey-bars.”
- Condition** – The condition of a component within the park system also affects the amount of service it provides. A playground in disrepair with unsafe equipment does not offer the same service as one in good condition. Similarly, a soccer field with a smooth surface of well-maintained grass certainly offers a higher degree of service than one that is full of weeds, ruts, and other hazards.
- Location** – To be served by something, you need to be able to get to it. The typical park playground is of more service to people who live within easy reach of it than it is to someone living all the way across town. Therefore, service is dependent upon proximity and access.
- Comfort** – The service provided by a component, such as a playground, is increased by having amenities such as shade, seating, and a restroom nearby. Comfort enhances the experience of using a component.
- Convenience** – Convenience encourages people to use a component, which increased the amount of service that it offers. Easy access and the availability of trash receptacles, bike rack, or nearby parking are examples of conveniences that enhance the service provided by a component.
- Ambience** – Simple observation will prove that people are drawn to places that “feel” good. This includes a sense of safety and security, as well as pleasant surroundings, attractive views, and a sense of place. A well-designed park is preferable to a poorly-designed one, and this enhances the degree of service provided by the components within it.

In this methodology, the geographic location of the component is also recorded. Capacity is still part of the LOS analysis (described below) and the quantity of each component is recorded as well.

The methodology uses comfort, convenience, and ambience as characteristics that are part of the context and setting of a component. They are not characteristics of the component itself, but when they exist in proximity to a component they enhance the value of the component.

By combining and analyzing the composite values of each component, it is possible to measure the service provided by a parks and recreation system from a variety of perspectives and for any given location. Typically this begins with a decision on “**relevant components**” for the analysis, collection of an accurate inventory of those components, analysis and then the results are presented in a series of maps and tables that make up the **GRASP**[®] analysis of the study area.

Making Justifiable Decisions

All of the data generated from the GRASP[®] evaluation is compiled into an electronic database that is then available and owned by the agency for use in a variety of ways. The database can help keep track of facilities and programs, and can be used to schedule services, maintenance, and the replacement of components. In addition to determining LOS, it can be used to project long-term capital and life-cycle costing needs. All portions of the information are in standard available software and can be produced in a variety of ways for future planning or sharing with the public.

It is important to note that the GRASP[®] methodology provides not only accurate LOS and facility inventory information, but also works with and integrates with other tools to help agencies make decisions. It is relatively easy to maintain, updatable, and creates easily understood graphic depictions of issues. Combined with a needs assessment, public and staff involvement, program and financial assessment, GRASP[™] allows an agency to defensibly make recommendations on priorities for ongoing resource allocations along with capital and operational funding.

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Appendix D – Stafford County Drive Time Analysis

Stafford County Drive Time Analysis

By measuring distances from a point based on a 20 minute drive, average distance covered in that time, minimum distance covered, and maximum distance covered were determined. Entry points were used for several existing and proposed community parks with multiple fields, both diamonds and rectangles.

Location	Average	Min	Max	Type
Smith Lake Park	9.0	2.0	19.0	Existing
Patawomeck Park	9.5	0.3	18.5	Existing
Willowmere Park	8.4	3.6	14.0	Existing
St. Clair Brooks Mem. Park	11.2	4.1	18.6	Existing
Duff McDuff Green Mem. Park	9.7	4.4	14.8	Existing
Embrey Mill Park	10.3	3.9	20.4	Proposed
Chichester Park	9.8	4.3	19.2	Proposed

Average Totals: Existing	9.6	2.9	17.0
Average Totals: Proposed	10.1	4.1	19.8
Average Totals: All	9.7	3.2	17.8

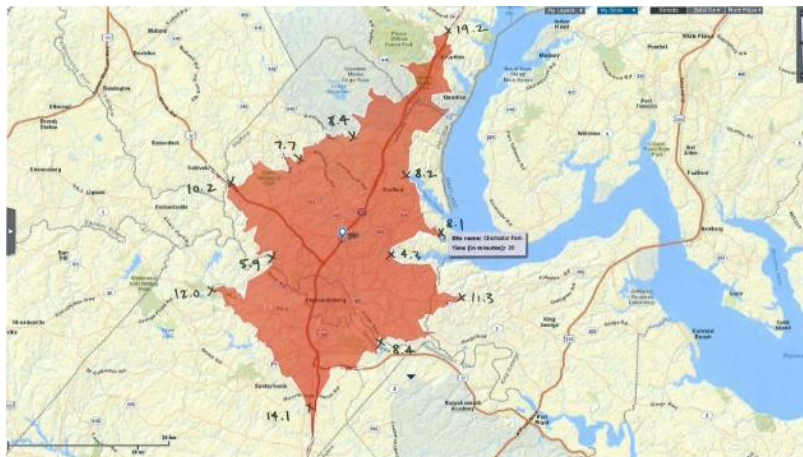
Chichester Park analysis

20 minute drive time:

Average 9.8 miles

Minimum 4.3 miles

Maximum 19.2 miles



Smith Lake analysis

20 minute drive time:

Average 9 miles

Minimum 2 miles

Maximum 19 miles



Potowomack analysis

20 minute drive time:

Average 9.5 miles

Minimum 0.3 miles

Maximum 18.5 miles



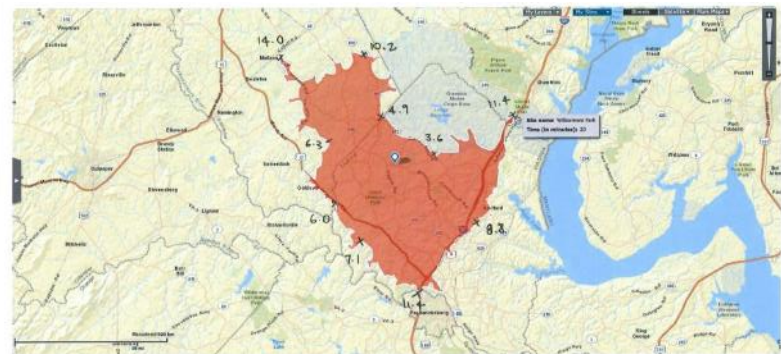
Willowmere analysis

20 minute drive time:

Average 8.4 miles

Minimum 3.6 miles

Maximum 14 miles



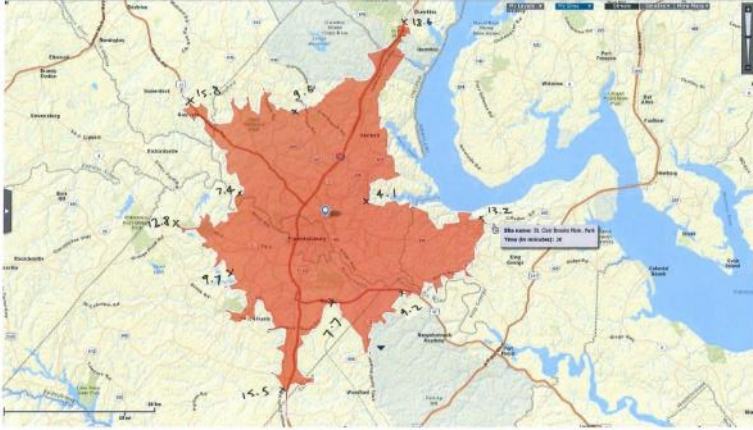
Brooks analysis

20 minute drive time:

Average 11.2 miles

Minimum 4.1 miles

Maximum 18.6 miles



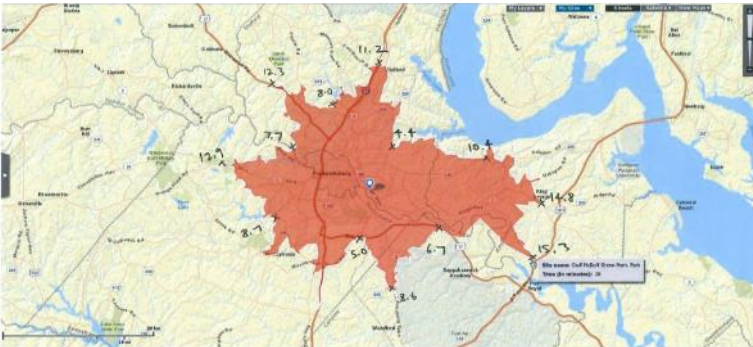
Duff McDuff analysis

20 minute drive time:

Average 9.7 miles

Minimum 4.4 miles

Maximum 14.8 miles



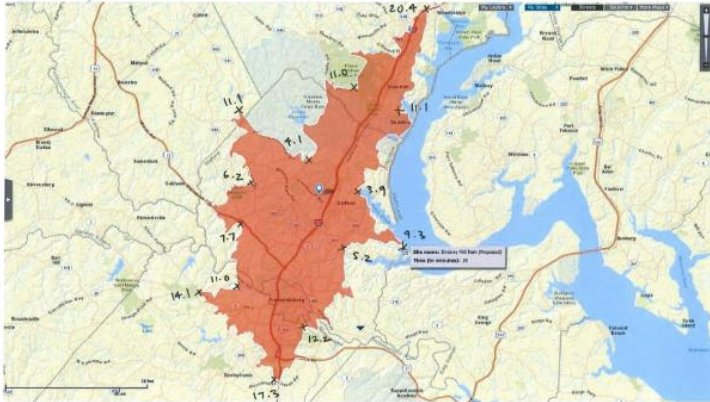
Embrey Mill analysis

20 minute drive time:

Average 10.3 miles

Minimum 3.9 miles

Maximum 20.4 miles



Appendix E: Park and Recreation Influencing Trends

The following information highlights additional local, regional, and national recreation trends from various sources that may influence Stafford County athletic field development planning for the next ten years.

A. Demographic Trends in Recreation

Adult – The Baby Boomers - Planning for the Demographic Shift

Baby Boomers are defined as individuals born between 1946 and 1964, as stated in Leisure Programming for Baby Boomers.⁵ They are a generation that consists of nearly 76 million Americans. In 2011, this influential population began its transition out of the workforce. As Baby Boomers enter retirement, they will be looking for opportunities in fitness, sports, outdoors, arts and cultural events, and other activities that suit their lifestyles. With their varied life experiences, values, and expectations, Baby Boomers are predicted to redefine the meaning of recreation and leisure programming for mature adults. In a July 2012 *Parks and Recreation* magazine article entitled, “Five Trends Shaping Tomorrow Today,” Emilyn Sheffield, Professor of Recreation and Parks Management at the California State University, at Chico indicated that Baby Boomers are driving the aging of America with Boomers and seniors over 65 composing about 39 percent of the nation’s population.⁶

In the leisure profession, this generation’s devotion to exercise and fitness is an example of its influence on society. When Boomers entered elementary school, President John F. Kennedy initiated the President’s Council on Physical Fitness; physical education and recreation became a key component of public education. As Boomers matured and moved into the workplace, they took their desire for exercise and fitness with them. Now as the oldest Boomers are nearing 65, park and recreation professionals are faced with new approaches to provide both passive and active programming for older adults. Boomers are second only to Gen Y/Millennials (born between 1980 and 1999) in participation in fitness and outdoor sports.⁷

Jeffrey Ziegler, a past president of the Arizona Parks and Recreation Association identified “Boomer Basics” in his article, “*Recreating retirement: how will Baby Boomers reshape leisure in their 60s?*”⁸ Highlights are summarized below.

⁵ Linda Cochran, Anne Roshchadl, and Jodi Rudick, Leisure Programming For Baby Boomers, Human Kinetics, 2009.

⁶ Emilyn Sheffield, “Five Trends Shaping Tomorrow Today,” *Parks and Recreation*, July 2012 p. 16-17.

⁷ 2012 Participation Report, Physical Activity Council, 2012.

⁸ Jeffry Ziegler, “Recreating Retirement: How Will Baby Boomers Reshape Leisure in Their 60s?” *Parks and Recreation*, October 2002.

Boomer Basics:

Boomers are known to work hard, play hard, and spend hard. They have always been fixated with all things youthful. Boomers typically respond that they feel 10 years younger than their chronological age. Their nostalgic mindset keeps Boomers returning to the sights and sounds of their 1960s youth culture. Swimming pools have become less of a social setting and much more of an extension of Boomers' health and wellness program. Because Boomers in general have a high education level, they'll likely continue to pursue education as adults and into retirement.

Stafford County's demographic profile indicates that 26.8% of the current population falls within the Baby Boomer age range (those approximately 45 – 64 years of age).

Boomers will look to park and recreation professionals to give them opportunities to enjoy many life-long hobbies and sports. When programming for this age group, a customized experience to cater to the need for self-fulfillment, healthy pleasure, nostalgic youthfulness, and individual escapes will be important. Recreation trends will shift from games and activities that Boomers associate with senior citizens, as Ziegler suggests that activities such as bingo, bridge, and shuffleboard will likely be avoided, because Boomers relate these activities to being old.

Boomers will reinvent what being a 65-year-old means. Parks and recreation agencies that do not plan for Boomers carrying on in retirement with the same hectic pace they've lived during their years in employment will be left behind. Things to consider when planning for the demographic shift:

- Boomer characteristics
- What drives Boomers?
- Marketing to Boomers
- Arts and entertainment
- Passive and active fitness trends
- Outdoor recreation/adventure programs
- Travel programs

Youth – Planning for the Demographic Shift

As one of the, "Five Trends Shaping Tomorrow Today," Sheffield also identified that the proportion of youth is smaller than in the past but is still essential to our future. As of the 2010 Census, the age group under age 18 forms about a quarter of the U.S. population, and this percentage is at an all-time low. Nearly half of this population group is ethnically diverse, and 25 percent is Hispanic.⁹

⁹ Emilyn Sheffield, "Five Trends Shaping Tomorrow Today," *Parks and Recreation*, July 2012 p. 16-17.

B. Facilities

General Programming

One of the most common concerns in the recreation industry is creating innovative programming to draw participants into facilities and services. Once in, participants recognize that the benefits are endless. According to *Recreation Management's* "2013 State of the Industry Report,"¹⁰ the most popular programs, offered by Parks and Recreation survey respondents, include holiday events and other special events (64.2 %), fitness programs (61.4%), educational programs (58.9), day camps and summer camps (55.2%), **youth sports teams (54.3%), sports tournaments and races (49.2 %)**, mind-body/balance programs (49.1%), swimming programming (teams and lessons) (48.5%), adult sports teams (47.8 %), sports training (44.1%), arts and crafts (42.7%), and programs for active older adults (40.9%).

The report also suggested slightly more than three in ten (30.2%) respondents indicated that they are planning to add additional programs at their facilities over the next three years. The most common types of programming they are planning to add include:

1. Educational programs (up from No. 5 on 2012 survey)
2. Fitness programs (up from No. 3)
3. Mind-body/balance programs – yoga, tai chi, Pilates, or martial arts (up from No. 6)
4. Day camps and summer camps (up from No. 10)
5. Holiday events and other special events (up from No. 7)
6. Environmental education (down from No. 1)
7. Teen programming (down from No. 2)
8. Active older adults programming (down from No. 4)
9. Sports tournaments or races (not on the 2012 survey)
10. Sport training (not on the 2012 Survey)

Off the top 10 list for new programming from 2012 are adult sport teams and performing arts.

C. Sports and Recreation Trends

General Sports and Recreation Trends

The National Sporting Goods Association (NSGA) survey on sports participation in 2011¹¹ found that the top five athletic activities ranked by total participation included: exercise walking, exercising with equipment, swimming, camping, and aerobic exercising, continuing a trend over a number of years. Additionally, the following active, organized, or skill development activities remain popular: hiking, running/jogging, bicycle riding, bowling, and a workout at the club. **Table 18** outlines the top twenty sports ranked by total participation in 2012.

¹⁰ Emily Tipping, "2013 State of the Industry Report, Trends in Parks and Recreation", *Recreation Management*, June 2013.

¹¹ 2011 Participation – Ranked by Total Participation", National Sporting Goods Association, 2012, <<http://www.nsga.org/i4a/pages/index.cfm?pageid=3346>>.

Table 19: Top Twenty Sports Ranked by Total Participation (in millions) in 2012

Sport	Total
1. Exercise Walking	102.1
2. Exercising with Equipment	57.7
3. Swimming	48.6
4. Camping (vacation/overnight)	45.2
5. Aerobic Exercising	44.8
6. Hiking	42.2
7. Running/Jogging	40.0
8. Bicycle Riding	39.3
9. Bowling	35.5
10. Workout at Club	35.2
11. Weight Lifting	31.1
12. Fishing (Freshwater)	30.8
13. Wrestling	28.4
14. Basketball	25.6
15. Yoga	22.9
16. Billiards/Pool	21.8
17. Target Shooting	21.7
18. Golf	21.1
19. Hunting with Firearms	19.4
20. Boating, Motor/Power	17.0

Source: NSGA 2012

D. Role and Response of Local Government

Collectively, these trends have created profound implications for the way local governments conduct business. Some local governments are now accepting the role of providing preventative health care through parks and recreation services. The following concepts are from the International County/County Management Association.¹²

- Parks & Recreation departments should take the lead in developing communities conducive to active living.
- There is growing support for recreation programs that encourage active living within their community.
- One of the highest priorities is a cohesive system of parks and trails and accessible neighborhood parks.

In summary, the United States of America, its states, and its communities share the enormous task of reducing the health and economic burden of obesity. While numerous programs, policies, and products have been designed to address the problem, there is no magic bullet to make it go away. The role of public parks and recreation as a health promotion and prevention agency has come of age. What matters is refocusing its efforts to insure the health, well-being, and economic prosperity of communities and citizens.

¹² www.ICMA.org, Accessed in 2012.

Administration Trends for Recreation and Parks

Municipal parks and recreation structures and delivery systems have changed, and more alternative methods of delivering services are emerging. Certain services are being contracted out and cooperative agreements with non-profit groups and other public institutions are being developed. Newer partners include the health system, social services, justice system, education, the corporate sector, and community service agencies. These partnerships reflect both a broader interpretation of the mandate of parks and recreation agencies and the increased willingness of other sectors to work together to address community issues. The relationship with health agencies is vital in promoting wellness.

The traditional relationship with education and the sharing of facilities through joint-use agreements is evolving into cooperative planning and programming aimed at addressing youth inactivity levels and community needs.

Listed below are additional administrative national trends:

- Level of subsidy for programs is lessening and more “enterprise” activities are being developed, thereby allowing subsidy to be used where deemed most appropriate.
- Information technology allows for better tracking and reporting.
- Pricing is often determined by peak, off-peak, and off-season rates.
- More agencies are partnering with private, public, and non-profit groups.

Americans with Disabilities Act (ADA) – Compliance

On September 14, 2010 the U.S. Department of Justice (DOJ) issued an amended regulation implementing the Americans with Disabilities Act (ADA 2010 Standards).¹³ On March 15, 2011 the amended Act became effective, and for the first time in history, includes recreation environment design requirements. Covered entities were to be compliant with design and construction requirements and the development of three-year transition plan by March 15, 2012. Implementation of the three-year transition plan must be complete by March 15, 2015.

The Role of the ADA with regard to Parks and Recreation Programming

How a community interprets and implements the guidelines of the ADA regarding parks and recreation programs and services for children, youth, and adults with disabilities ultimately depends upon the philosophy of staff and how accepting they are of people with disabilities. Some organizations provide a basic level of service as per the law and other communities embrace the notion of accessibility and choose to exceed what is expected.

Community therapeutic recreation programs must address the needs of all people with disabilities. Disabilities may include autism, developmental, physical, learning, visual impairments, hearing impairments, mental health and more. Community therapeutic recreation programs should also serve children, youth, and adults of all ages.

¹³ U.S. Department of Justice, Americans with Disabilities Act, ADA Home Page, <http://www.ada.gov/>, accessed on November 15, 2012.

The types of programs offered by a community therapeutic recreation program may include specialized, inclusive, and unified programs. Specialized recreation programs generally serve the needs specifically for someone with a disability. A “Learn to Swim” program for children with autism or an exercise program for adults with arthritis are just two examples of specialized programs. An inclusive program is one in which a person with a disability chooses to participate in a regular recreation program with a reasonable accommodation, alongside typical peers who do not have a disability. A third type of program is a unified program. This program is for individuals with and without disabilities who participate together as a “buddy,” or are paired or matched – able-body with disabled. Many Special Olympic programs are offered as unified programs.