SULLY WOODLANDS
REGIONAL MASTER PLAN
FAIRFAX COUNTY PARK AUTHORITY

APPROVED
September 27, 2006

Fairfax County Park Authority

Sully Woodlands Regional Master Plan

Approved September 27, 2006

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Sully Woodlands Regional Master Plan

Table of Contents

Table of Contents (con't)

List of Tables

List of Graphics

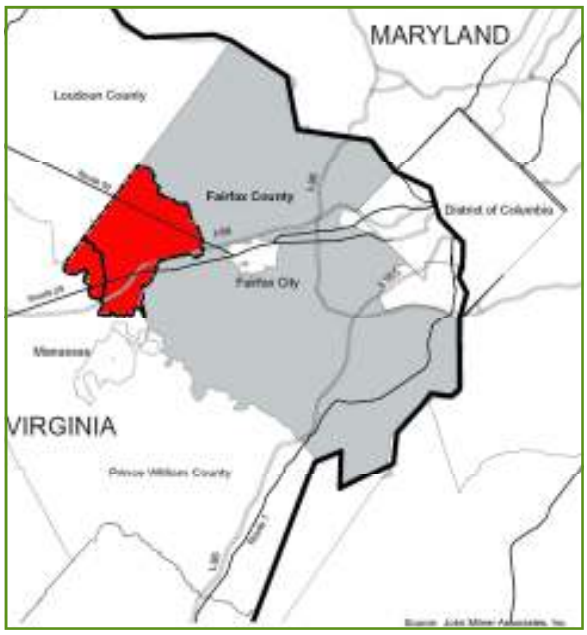
List of Acronyms

CRMP	Cultural Resource Management Plan
DOT	Department of Transportation
DPWES	Department of Public Works and Environmental Services
DPZ	Department of Planning and Zoning
FCPS	Fairfax County Public Schools
JMA	John Milner Associates, Inc.
NPS	National Park Service
NRMP	Natural Resource Management Plan
NVRPA	Northern Virginia Regional Planning Authority
RPA	Resource Protection Area
VDOT	Virginia Department of Transportation

Part 1: Introduction

I. Project Evolution

In recent years, the Park Authority has acquired over 2,000 acres of new parkland in the western portion of the County. These acquisitions have occurred through a variety of conveyance mechanisms including purchases, developer dedications, state grants, and land transfers. This significant assemblage of parkland contains some of the richest natural, cultural, and scenic resources in the County, while also creating opportunities to help meet the wide variety of ever-increasing recreational needs.



Project Area Location

Until recently, these new acquisitions have been referred to as the Hunter-Hacor Assemblage and Quinn Farm. Park planning efforts focused on a few select parcels in an effort to bring forward recreation development in a shorter timeframe than is often realized through our typical park planning process through a public-private venture. Concurrent with that effort, a General Management Plan was underway to provide a larger context for all aspects of park development. However, with the withdrawal of an offer of public-private partnership, the acquisition of additional parcels, a new Park Authority Board focus on resource management objectives, and the initiation of County watershed planning efforts, it became apparent that a revised planning approach was necessary.

The Hunter-Hacor planning project has expanded and evolved into the Sully Woodlands Regional Master Plan encompassing over 4,000 acres of parkland in the Cub Run and Bull Run Watersheds (Figure 1—Park Units,p. 44). The purpose of the project is to develop a regional framework to assess development in the watersheds and guide the planning and development of the approximately 2,150 acres of recently acquired parkland (referred to as the 'Core Properties' in this document[1]) and 2,250 acres of existing parkland. This ambitious planning effort requires the Park Authority to consider land development, as well as preservation and management issues, on a regional rather than local scale. Referring to the project as a 'Regional Master Plan' indicates the scale and scope of the process.

The Park Authority's recently approved Natural Resource Management Plan (NRMP) and soon to be approved Cultural Resource Management Plan (CRMP) recommend added emphasis on resource management as part of the agency's planning process. Given the wealth of natural and cultural resources that exist within the project area, this regional park planning process offers an excellent opportunity to implement certain NRMP and CRMP initiatives from the beginning.

In a complementary planning activity, the Department of Public Works and Environmental Services (DPWES) is developing Watershed Management Plans for several watersheds within the County. Running parallel to the Sully Woodlands project, planning for the Cub Run and Bull Run watersheds has provided the Park Authority with valuable information regarding opportunities for

[1] The park unit names within the Core Properties are for reference only. Recently acquired parks will be officially named during subsequent planning activities.

improving management of parklands within the watershed. The goal is to produce a Regional Master Plan that not only achieves park objectives for land use and resource management, but one that is in direct concert with, and rooted in, similar County watershed management objectives. This dual effort, encompassing a broader context, will yield additional information and analysis which impacts the ultimate development, preservation, and management of not only parkland, but other County and private lands as well.

II. Rationale and Process

According to the Cub Run and Bull Run Watershed Management Plan, lands for park and golf course use comprise 16 percent of the total watershed area within Fairfax County. Given the amount of parkland in this area of the County and the unique resources found on these properties, the Park Authority has an opportunity to take a proactive approach to planning. This will ensure that the natural and cultural resources are effectively protected and managed, and development is directed to appropriate areas to meet recreation needs. The Regional Master Plan will focus on developing a system of interconnected green spaces considering the complete experience of all parks within Sully Woodlands.

Sully Woodlands represents some of the last opportunities to preserve relatively undisturbed natural and cultural resources. Because of its large undeveloped areas, this area harbors resources that are unique in Fairfax County. Including preservation initiatives in planning and development efforts is crucial to maintaining the integrity of natural and cultural resources, as well as education and interpretation opportunities.

At the same time, this land assemblage presents an opportunity to provide needed recreational uses and activities to the citizens of Fairfax County. The public process for Sully Woodlands and other planning projects, as well as the Needs Assessment, continually reiterates the need for the Park Authority to develop a range of active and passive recreation facilities such as athletic fields, trails, and places for gatherings.

In this project, the Park Authority faces the challenge of balancing the need to identify recreation opportunities with the preservation of critical resources, in keeping with the agency's dual mission. To find this balance, a resource-driven approach to planning is being used at Sully Woodlands. The Regional Master Plan represents a thorough analysis of the project area to identify resource preservation priorities and land with less sensitive resources appropriate for development. The intention is to provide the needed recreation facilities, while preserving and maintaining the high quality resources for future generations.

With a project of this size and scope, a ccomprehensive and multi-layered process was needed to gather and assess information. The development of this regional master plan involved a multi-disciplinary staff team, inter-agency technical team, consultant report, extensive public input process, and needs assessment analysis, each briefly described below:

Multi-disciplinary Staff Team. The project staff team consists of multiple representatives from the Planning and Development Division, Resource Management Division, Park Services Division, and Park Operations Division bringing a wide-range of experience and expertise to the table. The staff teams met frequently to manage the consultant report, facilitate the public process, and ultimately produce the Regional Master Plan document.

Inter-Agency Technical Team. The Park Authority solicited technical assistance from expert staff in various County agencies to provide additional information, assist in developing recommendations, and participate in document review. Representatives from the Department of Planning and Zoning (DPZ),

Department of Transportation (DOT), and DPWES formed this inter-agency technical team.

Consultant Report. Because of the large scope of this project, the Park Authority contracted a consultant, John Milner Associates, Inc. (JMA), to complete a landscape assessment of Sully Woodlands. This study was commissioned to provide guidance for the appropriate use of these parklands and protection of their sensitive features through a holistic assessment of all park resources and forecasted recreational needs. The development of management guidelines and recommendations concerning future planning and development of these parklands constitutes the primary objective of this study. These management guidelines and recommendations place priority on the existing natural, cultural, and visual resources found within the parklands, and seek to recommended uses that are most appropriate to the inherent landscape characteristics of each park. This study is also intended to provide the Park Authority with an assessment methodology that can be applied to other parks within the County, identify current gaps in data for parks within the study area, and make recommendations for further research where appropriate.

Public Process. Another crucial component to the project consisted of the public process. The initial outreach efforts began with a public information session held in June 2005. The public information session was followed by a series of three focused public workshops in July 2005 covering natural and cultural resources, recreation, and trails. A public hearing was held in May 2006 with the public comment period remaining open until June 2006. In addition, staff met with interest groups on numerous occasions to better understand their needs and to see if such uses can be accommodated in Sully Woodlands. These public meetings along with written comments offer valuable information on the priorities of the citizens.

Needs Assessment Analysis. In addition to public input, the needs assessment findings provide insight on recreation needs, discussed in greater detail on page 27. Based on population and Park Authority adopted service level, recreation facility deficiencies were identified and taken in to consideration when developing use recommendations.

The Regional Master Plan is based upon a wealth of research, analysis, and decision making beginning in the Hunter-Hacor General Management Plan and evolving to this final product covering portions of two watersheds and nearly one-fifth of all Park Authority property. The Regional Master Plan will serve as a guide for all future planning, and should be referred to before any planning and design projects are initiated. As new properties are acquired, this document will provide an immediate framework to facilitate the management and development of those lands.

III. PROJECT PURPOSE

The Park Authority is charged with a dual mission enhancing quality of life by setting aside public spaces for the protection of natural and cultural resources, while also providing opportunities for recreation. The need to preserve resources *and* develop recreation facilities creates an inherent tension that the agency continually works to balance.

To assist in the decision making process, four guiding principles were developed. These guiding principles are overall philosophies believed to be essential to the project and will provide direction for all park planning and development in the project area:

A. Stewardship—protecting and managing natural and cultural resources, while directing development to land with less sensitive resources.
B. Recreation—meeting the community need for diverse recreation opportunities.

C. Interpretation & Education—establishing educational themes that draw upon the rich natural and cultural heritage of the region and developing a comprehensive approach to resource interpretation.

D. Connectivity—protecting wildlife habitat corridors and providing pedestrian, vehicular, equestrian, and water access.

To further develop the guiding principles, the following were identified for each:

- *Themes*—statements of the important components of each guiding principle.
- *Issues*—identifying what needs to be addressed or accomplished to support the themes.
- *Strategies*—linking the regional master plan to action; how the issues can be addressed.

Rocky Run Stream Valley

A. Stewardship Guiding Principle

The philosophy of stewardship is crucial to the planning and development of Sully Woodlands. The Park Authority defines stewardship as the careful and responsible management of the natural and cultural resources entrusted to us by the citizens of Fairfax County in order to ensure their integrity for present and future generations. Stewardship does not preclude development in Sully Woodlands, but helps direct it to land with less sensitive resources while higher quality resources are managed and preserved.

Numerous themes relating to natural resources and cultural resources were identified for the stewardship guiding principle, many touching on the guiding principles of connectivity and education as well[2]:

1. Natural Resources

The Core Properties of Sully Woodlands represent the largest contiguous areas of County -owned parkland in Fairfax County and are home to unique habitats for rare plant and animal species. These habitats and species must be protected to ensure they will continue for future generations. In addition, Sully Woodlands represents a significant assemblage of undeveloped properties in the Occoquan watershed, a major source of drinking water in Northern Virginia.

Theme:

- Preserve the large contiguous landscapes in Sully Woodlands that have remained undisturbed for a long time. These lands allows unique plant communities to establish and animals to exist that can only tolerate very limited contact with humans.

Issues:

- Inappropriately located development can potentially disrupt the function of existing systems, interfere with wildlife, and introduce invasive species in previously undisturbed areas.
- Ecosystem functions often occur over large areas and between different natural community types. Different vegetative communities are often managed separately and system function is easily disrupted by human activities.
- Rare plant communities are often highly susceptible to disturbance and invasion by exotic species.
- Citizens often value trees over other types of plants—forests over

[2] Refer to discussion of Connectivity Guiding Principles for related theme.

grasslands—even though fields and old fields are the fastest disappearing types of natural communities in Fairfax County.

Strategies:

- Carefully plan development to minimize disruption of large land units and water resources, and avoid sensitive wildlife areas.
- Minimize human access to highly sensitive areas, providing a similar experience in less sensitive zones.
- Manage parklands across Sully Woodlands to the greatest extent possible to preserve the interaction and functions throughout and across watersheds, soil assemblages, vegetative community types, wildlife corridors, and the needs of keystone species.
- Protect large and high quality fields and old field systems and manage them to remain as diverse, unmowed fields.
- Actively research and monitor unique plant communities.
- Conduct inventories prior to locating facilities or activities in order to minimize impacts to sensitive resources. Develop and implement natural resource management plans for sensitive resources.
- Educate citizens about unique resources and involve them wherever appropriate in research, monitoring, and management activities.
- Establish partnerships with appropriate scientific, educational, and volunteer organizations to assist in monitoring and research activities.
- Work with County and State agencies and citizen organizations to minimize disruption of ecosystem functions across the project area and between large land units.

Bull Run

Theme:

- Maintain and improve the condition of the water resources of Sully Woodlands,which drains to the Occoquan Reservoir, one of Northern Virginia's primary sources of drinking water.

Issues:

- Currently, water resources are in relatively good condition because of the preserved headwaters and stream corridors, low levels of impervious surface, large floodplains, and clean stream segments supporting healthy stream organisms.
- Development and activities could negatively impact water quality, disrupt the natural movement of water, and result in habitat degradation.
- Protection of riparian buffer areas and ecological corridors is particularly important in this area, where substantial ecological corridors remain and where water quality protection and enhancement are key considerations.
- Fairfax County is actively working to monitor and improve water quality through programs and projects such as the watershed planning process.
- Undeveloped areas within Sully Woodlands are adjacent to high-density residential areas immediately to the west in Loudoun County and south of Washington Dulles International Airport.

Strategies:

- Carefully locate development to minimize disruption of floodplains, wetlands, headwaters, drainageways, and hydrology to protect water quality and flows.
- Manage urban forests and stream buffers to reduce runoff rates, improve stormwater runoff quality, and improve overall stream health.
- Mitigate for all water resource impacts within the watershed and encourage others to do so as well.
- Participate in and sponsor efforts to educate citizens on the importance of protecting and improving water quality.
- Adhere to policies and requirements addressing riparian buffer areas and ecological corridors such as the Environmental Quality Corridor policy, Resource Protection Area requirements, and Floodplain regulations.
- Seek opportunities to maximize the protection and enhancement of riparian buffer areas.
- Support and participate in projects and programs to improve water quality and reduce impacts from excessive flows.
- Support and augment water quality goals through open space protection, structural stormwater management best practices, environmentally-sensitive turf management practices, and low impact development site design concepts.

Lanes Mill

- Work with the DPWES and other agencies and organizations to locate projects on parkland when and where appropriate to improve or enhance water quality and watershed function.
- Coordinate with DPWES, NVRPA, and NPS to incorporate watershed plan objectives into planning and development initiatives within the Cub Run and Bull Run watersheds.

2. Cultural Resources

A large number of important archaeological and historic sites are found within Sully Woodlands including the Sully Historic Site, remnants of the Manassas Gap Railroad, and numerous Native American sites. These sites range in age from 10,000 years ago into the 20th-century. Many are eligible for inclusion in the National Register of Historic Places. Cultural resources in this area document the history of a wide range of people, with many sites representing ordinary people living in the western part of Fairfax County.

Theme:

- Preserve, document, and interpret the rich array of cultural resources including historic buildings and structures, cultural landscapes, cemeteries, Civil War resources, and archaeological sites within Sully Woodlands.

Issue:

- The public needs to be made aware of the breadth of cultural resources and their significance to develop a culture of stewardship.

Strategies:

- Enlist County citizens and visitors to act as stewards of the land and resources through education. Introduce the public to the "Adopt a Site" program.
- Provide appropriate public access to see and experience the resources, while minimizing impact to sensitive resources.

Theme:

- Preserve known archaeological sites documenting the many groups of people largely invisible in historic records including Native Americans, African Americans, and ordinary citizens, many of whom were farmers.

Issues:

- Archaeological resources need to be identified and require management and continued protection.
- Any development requires careful consideration of known and potential archaeological resources, which are important to our history.

Strategies:

- Develop long-range plan to conduct Phase I surveys to locate and identify archaeological resources in the Sully Woodlands assemblage.
- Target key known and predicted archaeological sites for fieldwork and additional research to evaluate the integrity and extent of these resources.
- Develop a comprehensive strategy for protecting and interpreting archaeological sites.

Theme:

- Protect undeveloped terrain in the interior of large parcels allowing the visitor to experience the true sense of the unspoiled nature of the western part of the County, thus providing a glimpse of the past.

Issues:

- Important cultural landscapes should remain intact.
- Sensitive and rare cultural landscapes require careful protection and management to preserve the integrity of these resources.

Strategies:

- Identify unique cultural landscapes with historic significance and develop a protection strategy.
- Determine appropriate level of human activity in and around key cultural landscapes and evaluate how different uses of the property may disturb these landscapes when developing interpretation programs and trail systems.

B. Recreation Guiding Principle

The Park Authority strives to provide a range of recreation opportunities for the citizens of Fairfax County. As the County becomes more urbanized, it becomes increasingly difficult to find land appropriate for recreation development, placing stress on properties with resource value to help accommodate recreation need. The intention is to limit conflicts between development and resource preservation, while still providing needed recreation facilities.

Theme:

- Develop recreational facilities to meet Park Authority contribution levels established through the Needs Assessment and to meet recreation needs identified through the public planning process.

Issues:

- The Park Authority's current landholdings will not be able to accommodate all the identified recreation needs. In addition, some recently acquired properties with development potential lack utilities and appropriate access.

- As all existing needs may not have been identified and recreation patterns can shift over time, the Regional Master Plan needs to be adaptable.

Strategies:

- Identify and prioritize recreational development opportunities.
- Utilize low impact development techniques and environmentally sensitive design whenever appropriate.
- Review existing parks to see if additional recreation facilities can be developed to take advantage of existing infrastructure.
- Create flexible, multi-functional spaces able to accommodate a multiplicity of uses.
- Pursue acquiring land suitable for recreation development and a large special events facility, preferably with adequate utility and road access.
- Coordinate with schools and other public and private recreation entities to assist in providing for recreation needs not able to be accommodated on Park Authority property.
- Coordinate with school representatives to pursue feasibility of replacing natural turf fields with lighted, artificial turf fields to maximize use.
- Review the Regional Master Plan and recreation needs on a regular basis to address unrecognized needs as they emerge.

Theme:

- Capitalize on the surrounding context, unique resource, and large undeveloped areas in Sully Woodlands to develop facilities and activities meeting a wide range of interests and ages.

Issues:

- Large facilities such as athletic field complexes can be best accommodated within large undeveloped properties, such as Sully Woodlands.
- A mixture of passive and active recreational features should be developed at parks for daylong family and community gatherings.
- Activities taking advantage of the unique resources and surrounding context, such as water access or proximity to the Manassas National Battlefield Park, should be developed.
- Revenue generating uses should be explored to generate income to offset management costs.

Strategies:

- Locate large facilities along routes with planned improvements or where public utilities are available.
- Coordinate with DPZ and DOT on the timing for development of public improvements, as well as other land use development.
- Cluster or co-locate facilities to share parking and other amenities.
- Develop facilities appealing to a variety of users.
- Evaluate and prioritize potential revenue generating activities. Develop business plans for high priority activities.
- Encourage public-private partnerships to share development costs and on-going maintenance expenses.
- Coordinate activities with the National Park Service (NPS) and Northern Virginia Regional Park Authority (NVRPA).
- Pursue resource-based recreational opportunities such as orienteering or canoeing.
- Support Watershed Plan recommendations to create appropriate recreation opportunities within the watersheds.

C. Education and Interpretation Guiding Principle

Park users, neighbors, schoolchildren and others are more likely to support resource protection goals if they have an understanding and appreciation of the uniqueness and importance of the area's resources. The uniqueness of Sully Woodlands provides opportunities for educational experiences not available in other areas of Fairfax County and provides a close-to-home opportunity to engage in a more rural, natural experience.

Theme:

- Engender a culture of stewardship through education and interpretation to develop an interested public to act as stewards.

Issue:

- To educate visitors, a comprehensive interpretive program needs to be created.

Strategies:

- Develop interpretive signage and brochures to educate Sully Woodlands visitors.
- Use a variety of media to educate visitors before, during, and after visiting Sully Woodlands, such as brochures, publications, the Park Authority website, interpretive signs and exhibits. Link signs, publications, and brochures to a web page providing additional information.
- Develop hubs for interpretive experiences at designated gateways to the trail network and at existing facilities, such as Sully Historic Site and Ellanor C. Lawrence Park.
- Treat Sully Woodlands as a large outdoor laboratory to educate citizens about natural and cultural resources.
- Use recreation facilities as opportunities for interpretation through signage and exhibits (e.g. displays at Cub Run RECenter).
- Partner with area schools to develop education and interpretation programs geared toward specific age groups.
- Coordinate with DPWES to educate residents about watershed, stormwater, and stewardship-related topics, in a concerted manner.

Theme:

- Develop a landscape-level interpretive program to look at the natural and cultural features on a landscape or regional level, and not in isolation.

Issues:

- Existing and new park sites have interpretive themes in various stages of development, though an overall regional approach to interpretation has not been implemented.
- The Core Properties lack the infrastructure for an interpretive program with only limited existing trails and parking. Currently, this lack of access hinders the development of a comprehensive interpretive program.

Strategies:

- Complete an overall interpretive plan to develop landscape-wide themes derived from the consultant report. Develop subsequent site-specific or thematic interpretive plan as needed.
- Coordinate with NPS and NVRPA to create integrated interpretive programs.
- Incorporate education and interpretive programs at existing sites, such as Ellanor C. Lawrence Park and Sully Historic Site.
- Connect existing and newly acquired park properties. Provide connections to other sites with interpretive potential.
- Provide adequate access and visitor amenities at key interpretive sites, such as trails and parking.

D. Connectivity Guiding Principle

The principle of connectivity provides the backbone for developing a park system in Sully Woodlands, physically and conceptually tying together the elements of stewardship, recreation, and education and interpretation. Sully Woodlands consists both of large, contiguous areas of parkland and a scattered array of smaller parks and stream valley corridors. All of these sites can be connected through a greenway/habitat corridor network and a non-motorized transportation network to develop a functioning park system in Sully Woodlands.

Natural Surface Trail

Theme:

- Provide non-vehicular connections within and between various park sites in the region, to existing trails, and along roads.

Issues:

- There are numerous existing trails within the project area. Some already form a trail network, but there are gaps. Other trails are isolated, with little or no connection to other sites.
- Major roads, such as Route 66, Route 29, and even secondary roads like Pleasant Valley and Braddock Roads, impede non-vehicular traffic and create dangerous situations for pedestrians, bicyclists, and equestrians. Making reasonable trail connections across such roads will require extensive planning and expensive construction in most cases.
- Streams, including Cub Run, Elkick Run, Rocky Run, Flatlick Branch, and Frog Branch, form barriers to non-motorized use.
- In some instances, land acquisition will be required to complete critical trail connections.
- The Park Authority oversees construction on parkland and within stream valleys, but trails on public rights-of-way or on privately owned land are outside of agency jurisdiction.
- The Core Properties are poorly connected to population centers.
- Highly sensitive resources may not be compatible with trail development, though a number of these areas contain some of the most interesting and unique views, topography, vegetation, and wildlife.

Strategies:

- Identify opportunities to connect gaps in the existing trail network. Coordinate with the DPWES and the DOT to construct additional trails.
- Prioritize trail connections requiring land acquisition or easements and needed stream crossing. Identify funding sources to complete projects.
- Coordinate with DOT to prioritize road crossings and/or underpasses, and incorporate into planned road improvements.
- Coordinate with DPZ and DOT to ensure all major connections outside of Park Authority property are included on the Countywide Trails Plan.
- Connect facilities to users by appropriately providing facilities in or near residential neighborhoods and provide trail connections, whenever possible and appropriate.
- Identify areas with sensitive resources not appropriate for trail development

and evaluate feasibility for providing controlled access to these areas through staff-led programs. In areas appropriate for trail development, find land that could provide a similar experience and use interpretive signage to describe areas where access is not provided.

Theme:
- Create a variety of trail types and surfaces to meet the needs of all trail user groups.

Issue:
- Each user group has particular needs for trail use and enjoyment.

Strategies:
- Identify and prioritize trail user needs. Determine which needs can be accommodated in Sully Woodlands
- Consider trail surface, topography, width, length, accessibility, and other factors during planning and design to provide variation in experience.
- Provide a variety of trail types, surfaces, and visitor amenities to accommodate a range of needs.

Theme:
- Develop numerous trailheads and several larger gateways to serve as major entrance points into the Sully Woodlands park system and offer visitor amenities.

Issue:
- Trailheads and gateways should be located based on the overall planning of Sully Woodlands and the surrounding context.

Strategies:
- Locate trailheads and gateways in relation to road access, land use, public lands, and anticipated development within the region.
- Identify existing trailheads needing improvement.
- Co-locate trailheads and gateways with existing and proposed facilities to share parking and other provided amenities.
- Provide regulatory, orientation, and interpretive signage.

Fair-weather Crossing

Theme:
- Emphasize access to waterways, which function as corridors for people and wildlife.

Issues:
- Opportunities are limited to provide access for water-based recreation.
- Increased human activity on and near waterways could potentially impair ecological function and degrade water quality.

Strategies:
- Identify locations appropriate for water access. Pursue acquisition opportunities to improve water access.
- Coordinate with NVRPA to provide access to existing water-based recreation at Bull Run Regional Park.
- Limit water-based recreation to small non-motorized watercraft, such as canoes and kayaks.
- Carefully locate development near waterways to preserve their flow and function.

Theme:

- Preserve and connect large, relatively undisturbed tracts of land which function as greenways. These greenways act as havens for wildlife including rare birds such as the rough-legged hawk and short-eared owl, uncommon mammals like mink and river otter, abundant prey species including mice and eastern meadow voles, and predators like coyotes and northern harrier hawks. There may also be small animals (invertebrates such as insects, spiders, etc.) unique to the region.

Issues:

- High levels of human activity can disrupt sensitive animal species.
- Development fragmenting the large land tracts can impair the function of greenways.

Strategies:

- Limit human access to habitat areas that support sensitive species to appropriate areas and/or times of year to avoid disrupting feeding, roosting, breeding, and other behaviors.
- Manage landscapes for the long-term health of the ecosystems and to allow for the freest possible movement of animal species.
- Seek to acquire adjacent lands to further protect and expand wildlife corridors and allow for uninterrupted movement.

Part 2: Existing Site Conditions & Analysis

I. Land Use Context

A. Planning Concept

A majority of the Sully Woodlands study area falls within the Bull Run Planning District, which includes Centreville and Chantilly. The Fairfax County Comprehensive Plan provides a framework that encourages new residential and commercial development to be concentrated in certain areas, while allowing a large portion of the Bull Run Planning District to remain in low density residential use and as parkland.

The Dulles Suburban Center (along the Route 28 corridor, with access to Dulles Airport), is planned to contain a mix of uses and is characterized mainly by office, industrial, and retail uses. Both the Centreville and Chantilly areas include significant residential uses. Most of the existing residentially developed area in the Bull Run Planning District is included in the Suburban Neighborhood classification. Suburban Neighborhoods are predominantly residential in character, containing a wide variety of housing types and densities and neighborhood-serving retail and commercial uses. Other uses are not generally encouraged. Residential areas outside of Suburban Neighborhoods are planned for low density residential uses having 5-10 acre lot sizes and larger. These areas are rural in character and are not served by public sewer or water. Environmental protection through low intensity development is stressed in these areas.

The Park Authority is working with the DPZ to evaluate the Regional Master Plan within the land use recommendations of the County Comprehensive Plan. Once the Regional Master Plan is completed, a determination can be made if amendments to the Comprehensive Plan are necessary. In addition, reviews pursuant to Virginia Code Sec. 15.2-2232 (commonly referred to as the 2232 review pro-

cess) will be conducted by the Planning Commission to determine that the planned park uses are substantially in accord with the County Comprehensive Plan in terms of location, character and extent.

B. Growth

Rapid commercial development occurred in the 1980s as a result of the ease of access to Dulles Airport, which provided an incentive for the location of businesses. Residential development grew to take advantage of the ease of access to I-66 and new employment opportunities in Fairfax Center and along Route 28 and the Dulles Airport Access Road. Growth in the vicinity of Dulles Airport and in the Centreville and Fairfax Center areas has contributed to new development patterns with a full range of commercial, industrial and residential uses. In recent years, growth has stabilized in the eastern and southern portions of the project area. Anticipated growth in the northern and western portions of the watersheds, however, is identified in the Watershed Plan as a concern for future watershed conditions.

Location of Occoquan Reservoir Watershed

C. Occoquan Watershed

The entire Bull Run Planning District is located within the Occoquan Reservoir watershed. A major reevaluation of land use in the district occurred as a result of the Occoquan Basin Study in 1982. On July 26, 1982, the Fairfax County Board of Supervisors approved the rezoning of nearly 41,000 acres in the Occoquan Watershed to a Residential-Conservation (R-C) District to protect the County's water supply. The R-C District allows residential development at a density of one dwelling unit per five acres.

The Occoquan Reservoir provides drinking water to a large portion of the population in northern Virginia. Fairfax County and Prince William County have designated expansive areas of the Occoquan watershed for agricultural or low-density residential uses to protect this valuable resource. In the watershed, the Fairfax County Comprehensive Plan recommends residential densities of .1 to .2 units per acre (or one unit per 5 to 10 acres) and parkland. Similarly, Prince William County has planned low-density residential uses at one unit per five to ten acres and parkland for much of its portion of the watershed.

To the west, Loudoun County has allowed residential developments at densities of 2-4 units per acre, with accessory commercial uses in its portion of the watershed. Pressure to develop at this density continues, as a new rezoning application is under consideration in Loudoun County to build over 170,000 square feet of commercial uses and 1,700 homes on land immediately adjacent to Sully Woodlands. Overall, residential rezonings in Loudoun County within a 5-mile radius of the Sully Woodlands core will result in the addition of over 19,000 homes and over 4.6 million square feet of commercial space. This growth can affect the western and southern portions of the project area in multiple ways including water resource and viewshed degradation and an increase in traffic volume and air pollution.

D. Transportation

The transportation network affecting the Bull Run Planning District is comprised of several elements, many of which relate to more extensive countywide facilities, services, and policies. Major roadways traversing the District include I-66, Route 28 (Sully Road), Route 50 (Lee Jackson Memorial Highway), and Route 29 (Lee Highway). Major arterials include Braddock Road, Pleasant Valley Road, Stone Road, Poplar Tree Road, Westfields Boulevard, and Stringfellow Road. In addition, Pleasant Valley Road was designated as a Virginia byway in 2004. Of these major arterials, planned improvement to four lanes of Braddock, Pleasant Valley, and Walney Roads will impact park property. The planned eight lane improvement to Route 28 will impact Ellanor C. Lawrence Park. The Old Lee Road realignment is planned to bisect Quinn Farm *(now Rock Hill District)* Park (Figure 2—Transportation Plan,p. 45).

The Fairfax County Comprehensive Plan recommends the location of a commuter rail station in Centreville, a north/south corridor with access to Dulles Airport, and a north/south corridor west of Fairfax County that is multi-jurisdictional in nature (also known as the Tri-County Parkway). In November 2005, the Commonwealth Transportation Board selected the "West Two" alignment option for the Tri-County Parkway. The "West Two" route is located west of the Manassas National Battlefield Park and connects Prince William's Route 234 interchange, running north of I-66 to the Loudoun County line and connecting to the Loudoun County Parkway. The proposed Comprehensive Plan alignment was not selected because of the extensive environmental and park impacts; however, the alignment remains on the adopted Comprehensive Plan for Fairfax County.

The National Park Service seeks to create a Route 29 bypass road to reduce traffic through the Manassas National Battlefield. In June 2006, the Commonwealth Transportation Board approved the preferred Candidate Build Alternative D alignment with conditions. The alignment will affect the Horne property (*now Poplar Ford*), though the approved design modifications lessen the impact. The approved alignment will have less impact on Park Authority property than other alternatives considered.

The Fairfax County Transportation Plan is currently under review. In addition, the Department of Transportation is working closely with the Sully Woodlands staff team in the analysis of traffic impacts.

E. Airport Noise

Airport noise impacts in the Upper Cub Run Community Planning Sector, which extends from Dulles Airport to Braddock Road and from Lee Road to the Loudoun County line, are the most severe of those found in Fairfax County. The substantial noise impacts from Dulles Airport shape the land use plan guidance for this area. An increase in flight operations is anticipated with the planned completion of an additional north-south runway and the possible construction of a second east-west runway. According to the Metropolitan Washington Airports Authority, Dulles Airport will have the capacity to serve 55 million passengers per year when all planned expansions and facility improvements are completed. No set timetable has been established for final build-out, however. Despite the introduction of quieter aircraft into airline fleets, continued major noise impacts, which will restrict the extent and amount of residential development and other noise-sensitive land uses, must be anticipated in this area into the future.

F. Easements

There are many easements existing on park property in the project area. Although easements may have unique restrictions or considerations associated with their uses, they can provide opportunities for resource protection and future recreational use and development (Figure 3—Easements,p. 46).

1. Utility Corridors

Numerous utility corridors cut across and connect parks within the study area. Under utility easements, landowners may undertake any activity within the easement that does not conflict with the utility company's ability to utilize its easement rights. Non-compatible uses generally include buildings and structures, permanent athletic facilities, fencing, permanent plantings, and any other features that may obstruct utility company access and operations. It will be necessary for the Park Authority to discuss any recommended use with the easement holders to determine if conflict exists; most utility companies are willing to consider uses on a case-by-case basis.

2. Storm Drainage Easements

Several storm drainage easements are found within the park inventory units. Generally, activities that interfere with stormwater flow or block maintenance access are not permitted, such as buildings and structures, grading, and tree planting.

3. Conservation Easements

There are many conservation easements that either transect or abut Park Authority property. Conservation easements vary widely in their parameters depending on the specific terms associated with resource protection on a property. Typically, new uses and improvements within a conservation easement area are required to have prior written authorization from the appropriate County agency. This includes disturbance of the site such as clearing of vegetation and grading.

II. Environmental Context

A. Geology

The project area is located within the Piedmont physiographic province, characterized by gently rolling topography, deeply weathered bedrock, and a scarcity of rock outcrops. The Piedmont's humid climate accelerates weathering, and bedrock is generally buried under a thick layer of subsoil. In this area, diabase intrusions have resulted in outcrops and boulders in some areas, including two notable outcrops, Rock Hill in Quinn Farm *(Rock Hill District)* Park and another hill in the Hunter-Hacor Assemblage *(now Elklick Preserve*) along Elklick Run. Diabase soils associated with this geological formation have significance regarding natural and cultural resources, discussed in the soils section below.

B. Topography

The overall character of the topography in this area is gently rolling uplands that form bluffs along deeply incised stream valleys. The landform gradually slopes from the north and east to the south and west, draining into Cub Run and Bull Run. The highest point in the project area is approximately 470 feet above mean sea level (MSL) and occurs in the central-eastern portion of the project area in the vicinity of Ox Hill Battlefield. The lowest point, approximately 140 feet above MSL, occurs along Bull Run below the confluence of Cub Run at the southeastern boundary of the project area. Terrain to the west of Cub Run is rougher, with steeper slopes and rock outcrops. To the east, the land is more gently rolling, with steep topography largely confined to the edges of drainageways.

C. Hydrology[3]

The project area encompasses a dense network of drainageways comprising two watershed areas. The principal waterways are Cub Run and Bull Run. Their tributaries include Elklick Run, Flatlick Run, Rocky Run, and Frog Branch, as well as many smaller and unnamed waterways. Ephemeral streams, vernal pools, and wetlands also comprise part of the hydrologic system in the project area.
The entire area drains into the Occoquan Reservoir watershed, which is a primary source of drinking water for the population of Northern Virginia. Some parklands within the area, such as the Hunter-Hacor Assemblage, *(Elklick Preserve)* were acquired by the Park Authority with a goal of protecting the water

[3] Refer to the Cub Run and Bull Run Watershed Management Plan for a detailed description of watershed conditions.

quality of the Occoquan Reservoir. Development, and the resulting increased impervious surfaces in surrounding areas, raises levels of non-point source pollution and increases the velocity and volume of stormwater runoff. This phenomenon has already compromised the water quality and habitat quality of many waterways in the County, and some of those in the project area.

The project area lies within the larger Chesapeake Bay watershed; water quality in the project area directly affects regional efforts to restore the Chesapeake Bay. Many of the waterways in this area fall within Chesapeake Resource Protection Areas (RPA) and receive special protection status from the County (Figure 4—Resource Protection Areas, p.47)

D. Soils

Soils in the project area support various plant communities and are suited to different kinds of uses, shaping historical settlement and agricultural patterns as people responded to the types of soils found in the area. In terms of characteristics, three kinds of soils are of particular interest: diabase, alluvial, and hydric.

Diabase soils are formed from particles of fragmented diabase rock. This intrusive, volcanic (igneous) rock is typically found in the Piedmont province of Virginia, which includes the project area. Appearing as outcrops and boulders, diabase is an indicator of particular natural communities, as well as areas rich in archaeological resources. Diabase soils are generally thin, sticky plastic clays with rocks and boulders, often with a perched seasonal high water table. These soils are found in large quantity in the project area, particularly in the western half. They provide conditions favorable to the growth of particular plants and plant communities that are increasingly uncommon. In terms of cultural history, diabase outcrops were used as a source of material for tools and weapons by Native Americans prior to European settlement. As a result of this prehistoric activity, diabase soils are frequently rich in archaeological resources.

Alluvial soils consist of silty and clayey alluvium eroded from sandstones, siltstones, and shales. These soils are subject to flooding as the seasonal high water table is close to the surface. Permeability is variable to slow. Soil materials range from soft organic silts and clays to dense gravel-sand-silt-clay alluvium, and are seasonally or permanently saturated. Erosion is common along stream banks within alluvial soils. These soils, though wet, are rich for agricultural uses. Areas of alluvial soils were used for farming, and cultivated fields were present along Cub Run and Rocky Run in the 1860s, and remained so until the mid twentieth century.

Hydric soils may occur in low areas within the alluvial types described above. These soils are saturated or flooded with water for enough of the growing season to develop anaerobic conditions. Wetland plant communities are found in hydric soils. Often, these soils occur in drainageways and footslopes, and have a high water table, shallow bedrock, and slow permeability.

E. Flora and Fauna

1. Plant Communities

The natural vegetation of the project area has been altered since pre-settlement through a long history of clearing, agriculture, logging, and other activities. Most Piedmont forests were repeatedly cut or have regenerated on former agricultural lands, some of which were abandoned more than 150 years ago. Recently disturbed Piedmont forests tend to have a large component of pines and shade-intolerant hardwoods. The composition of more mature hardwood forest communities varies with soils and topography. The following plant communities are present in the project area:

Acidic Oak-Hickory Forest is found in upland areas, dominated by 60-70 year old oaks. Hickory, holly, ash, ironwood, blueberry,

and viburnum are among the species found here. Invasive species are generally absent.

Basic Oak-Hickory Forest is a mature forest community that occurs on diabase soils. The mildly acidic circumneutral soils with high levels of base saturation result in this globally rare plant community only found in parts of Northern Virginia and Southern Maryland. Oak and hickory are the dominant canopy trees, while the shrub layer includes dogwood, redbud, viburnum, pawpaw, and blueberry. Rare and endangered plants are found in this context, and relatively few invasive species are present.

Basic Oak-Hickory Forest

Upland Depressional and Alluvial Forests are mature forest types that occur primarily in low-lying, permanently or seasonally wet soils. Canopy trees include oaks, ash, hickory, slippery elm, black gum, and tulip poplar; other trees found in this community include persimmon, black cherry, hackberry, pawpaw, sycamore, and Virginia pine, and in the shrub layer, blueberry, dogwood, viburnum, and blackberry. Groundcovers include some invasives such as Japanese stilt grass, wild strawberry, tall fescue, and Japanese honeysuckle.

Coniferous Woodlands are dense young (5-20 year old) woodlands that have grown up on old fields, and are primarily composed of Eastern redcedar and Virginia pine saplings. They will eventually develop into oak-hickory forests. Little understory or shrub layer is present; invasive species are usually present such as multiflora rose and bush honeysuckle.

Field and Hedgerows or "old field" communities include areas that were under cultivation but have gone out of agricultural use in the last few years. Open in character, this community is predominantly native and non-native graminoids and forbs, with some saplings of Eastern redcedar, persimmon, black gum, viburnum, autumn olive, and some rare herbaceous species present. Old field complexes are among some of the fastest disappearing habitat in the region and host a great variety of wildlife.

Wetlands in the project area fall within areas of alluvial and hydric soils. The vast majority of identified wetlands are palustrine or riverine deciduous forest wetlands that are flooded for part of the year. A few upland depressional swamps, a plant community described above, are found in the western part of the project area.

Red-tailed hawk found in Sully Woodlands

2. Wildlife

The project area includes large, interconnected patches of habitat in a region otherwise being quickly developed. Access to the Occoquan Reservoir is crucial to healthy wildlife populations in this area. Fauna include 618 identified species of mammals, reptiles, amphibians, birds, and butterflies in/around the Hunter-Hacor tract. Wildlife include, among others, beavers, foxes, bobcats, deer, bats, and many species of birds including owls and wild turkey.

A number of rare or threatened species are associated with the project area. Flora include the earleaf foxglove, purple milkweed, flat-stemmed spike rush, grove sandwort, stiff goldenrod, hairy beardtongue, Torrey's mountain-mint, and white heath aster. Rare and threatened species of fauna associated with the project area include one vertebrate, the wood turtle; invertebrates include the Manassas stonefly, yellow lance, and brook floater.

It should be noted that these species, in addition to the globally rare plant communities, are indicators of complexity and diversity. Their occurrence is a testament to the special nature of the land, highlighting the need to be cautious in making land management decisions.

1915 Map

III. Historic Context

Significant prehistoric and historical archeological sites occur throughout Fairfax County. Prehistoric sites date back to the Paleo -Indian Period (10,000-8,000 BC) through the Late Woodlands Period (1000-1600 AD). The earliest inhabitants were hunters and gatherers, who migrated in search of resources. In the Woodland Period, with the introduction of horticulture, there were more permanent settlements, the introduction of pottery and the development of more complex political systems. Some of the richest sites are located along Cub Run and its tributaries, such as Elklick Run. Sites include temporary campsites, resource procurement sites, quarries, and more long-term habitations. Numerous sites are known within the Sully Woodlands assemblage and there is a high probability for other significant sites to be present within the boundaries of the Sully Woodlands assemblage.

European settlement of Northern Virginia began in 1649. Many of the early land grants in the area were for relatively small tracts of land ranging from 200 to 500 acres. According to deed research, there may have been people occupying parts of the project area as early as the 1740s. Throughout the 18th century, this agrarian region specialized in tobacco, but by the 19th century, much of the soil was exhausted and grains were planted instead. In response to cheap land values, migration from Pennsylvania, New York, and Europe precipitated an agricultural revival beginning in the 1840s. The Civil War years decimated the area, but it returned to successful farming after a few years. The environs of Sully Woodlands were sparsely populated in the 18th and 19th centuries, and most likely ranged from slaves, tenants, or poor farmers to middle class farmers. Wealthier property owners connected to the area generally lived elsewhere.

Transportation corridors throughout the project area are quite old. Braddock Road, once known as Mountain Road, is the most notable, having been established by 1729, though it was an old Native American trail predating European settlement. Pleasant Valley Road was established in the early 20th century. Remnants of the uncompleted Manassas Gap Railroad transect the park, running perpendicular to Pleasant Valley Road. By the early 20th century, transportation improved and Washington, DC suburbs expanded into Northern Virginia. World War II brought development to the eastern part of the County, however the western area remained

virtually unchanged. After World War II, the number of farm residents declined by half. The rural character of the area was further eroded by the construction of Dulles Airport, the Capital Beltway, and Interstate 66.

The types of potential resources in the project area include 18th and 19th century domestic and agricultural sites. These sites might include small houses, barns and other agricultural structures, lean-to shelters for animals, fence lines, cabins, small shacks, privies, or wells. There is also high potential for the presence of a wide range of Civil War-related resources in the project area including encampments, fortifications, observation posts and small activity areas. Field reconnaissance surveys and systematic subsurface archaeological testing will be necessary to determine the actual presence or absence of potentially significant archaeological resources.

IV. Resource Sensitivity Analysis Summary

In the Landscape Assessment, JMA conducted a resource sensitivity analysis to highlight key factors that should be taken into account when planning for future park use and development. Parks ranking highest in resource significance and sensitivity indicate the greatest need for careful planning and sensitive site design, and generally correspond to the level of resource protection or recognized need for mitigation of recreational use and development impacts. It is important to note that a high ranking in resource significance does not necessarily indicate that the entire park area should be preserved, but that recreational use and development must be appropriate to particular landscape characteristics and site constraints.

The sensitivity analysis consisted of the following components:

- **Natural Resource Sensitivity**—The natural resource sensitivity analysis delineated and evaluated each park's habitat sensitivity, quality of water resources, and soil sensitivity. The resulting values for each park indicate a wide range of conditions for the parks in the project area, and a wealth of sensitive natural resources. High-ranking parks are relatively large in size and include significant water resources as well as areas of diabase soils.
- **Cultural Resource Sensitivity**—The cultural resource sensitivity analysis delineates and evaluates each park's relative resource concentration, importance, and ability to convey the interpretive themes represented within the study area. A high ranking for cultural resource sensitivity indicates a concentration of known cultural resources.
- **Visual Resource Sensitivity**—The visual resource sensitivity analysis evaluates each park's visual distinctiveness, intactness, and the current or potential effects of modern intrusions within the viewshed from key points within each park. The highest-ranked parks include distinctive scenic focal points, a high level of intactness, and/or large areas that are visually cohesive.

The composite resource sensitivity analysis is comprised of the combined results of the cultural, natural, and visual resource sensitivity studies. In general, the highest-ranking parks are either large, undeveloped parks encompassing many resources or smaller parks including one highly significant resource within their boundaries. Each of the parks with a high overall ranking includes multiple distinctive and sensitive features from important water resources, to rare habitat areas, to cultural sites with recognized importance. Parks with a high ranking include:

BOS Transfer #13 *(Poplar Ford)*
Cub Run Stream Valley North
Cub Run Stream Valley South
Eagle *(Hickory Forest)*
Elklick Woodlands Natural Area Preserve
Ellanor C. Lawrence Park

Horne *(Poplar Ford)*

Hunter-Hacor Core *(Elklick Preserve)*
Lanes Mill

Mt. Gilead *(Historic Centreville)*

Quinn Farm *(Rock Hill District)*
Sully Historic Site

The majority of parks fell within the center of the ranking range. The 17 moderate-scoring parks vary widely in character, ranging from large, undeveloped woodland parks with few previously-identified cultural resources, to stream valley parks, to mid-sized parks with some recreational development. Most of these parks encompass at least one specific type of sensitive resource, and some have the potential for more, depending on future research efforts. Parks with moderate scores include:

Cardinal Forest-Pleasant Valley West

Centreville Military Railroad *(Confederate Fortifications)*
Chalet Woods

Coscan Brookfield *(Elklick Preserve)*
Cub Run
Flatlick Run Stream Valley
Frog Branch Stream Valley

Goochland *(Cub Run RECenter)*
Greenbriar
Old Centreville Road
Ox Hill Battlefield
Pleasant Hill
Poplar Tree
Richard W. Jones
Rocky Run Stream Valley East
Rocky Run Stream Valley West

Stephens *(Mountain Road District)*

Virginia Run-Hacor Proffer *(Hickory Forest)*

Thirteen parks ranked low. These were all relatively small parks in developed, suburban settings. Most include developed recreation areas. While some of these parks can include small areas of resources, such as wetlands, they contain no large, highly sensitive resources. Many of these parks are in the eastern part of the project area. Parks with low scores include:

Centre Ridge
Centre Ridge North
Chantilly
Chantilly Library Site
Fair Oaks
Fair Ridge
Fair Woods
Fox Valley
Franklin Farm
Franklin Glen
Greenbriar Commons
Navy Vale
Stone Crossing

V. Park and Recreation Need

Need for park and recreation facilities is determined through long range planning efforts. The Park Authority tracks inventory of facilities and land, looks at recreation and leisure trends, surveys County resident recreation demand, and compares itself with peer jurisdictions to determine reasonable need. The most recent countywide Needs Assessment analysis was completed in 2004.

As part of the Needs Assessment process, the Park Authority Board adopted countywide service level standards for parkland and for typical recreational use facilities such as rectangle fields (1 per 2,700 population), playgrounds (1 per 2,800 population), neighborhood skate parks (1 per 106,000 population), neighborhood dog parks (1 per 86,000), reservable picnic areas (1 per 12,000 population) and nature centers (.04 square feet per person).

Park and recreation need for the Sully Woodlands Service Area was determined by looking at current and forecasted population, taking an inventory of existing facilities and applying service level standards to identify areas of surplus and deficits.

A. Service Area

The Sully Woodlands Service Area includes all of the Sully Woodlands project area, which is

defined by the Cub Run and Bull Run watersheds, plus additional areas outside the watershed boundaries that include the neighborhoods most likely to be served by the parks in the project area. Specifically, the Service Area is comprised of all of the Metropolitan Washington Council of Governments (MWCOG) Traffic Analysis Zones (TAZs) that fall completely within or intersect with the watershed boundary, plus a few additional TAZs that are just beyond the watershed boundary. This area represents about 15 percent of the Fairfax County land area.

In 2005, there were approximately 159,000 people living within the Sully Woodlands Service Area, representing about 15 percent of the Fairfax County population. By the year 2015, this number is expected to grow to about 180,000, an increase of nearly 12 percent.

B. Need Deficits

As the Park Authority is one of many countywide providers of park and recreation facilities and services, its responsibility to address citizen needs, as expressed in the Countywide standards, is reflected through the adoption of Park Authority contribution levels over the next ten years. Contribution levels represent goals for the agency to provide its share of needed facilities and parkland through 2015, while other entities (schools, private recreation providers, NVRPA) will provide for the unmet need. The following are Park Authority-endorsed Countywide contribution levels for key park and recreation facilities:

- Trails—75 miles
- Rectangle Sports Fields—95 fields
- Diamond Ball Fields—13 fields
- Reservable Picnic Areas—55 sites
- Multi-Use Courts—12 courts
- Neighborhood Dog Parks—6 sites
- Neighborhood Skateboard Parks—9 sites
- Nature Center Space—13,070 sq ft

Sully Woodlands offers opportunities to develop facilities that can satisfy a portion of the Park Authority contribution to the identified need. Based on the adopted service level standards, the Sully Woodlands service area has a current deficiency of 24 rectangle fields, 58 multi -use courts, 32 playgrounds, five youth softball fields, three adult baseball fields, two neighborhood dog parks, and two neighborhood skate parks, though it is assumed that some of those facilities will be provided by other entities. There is also a need for more trails, larger picnic shelter areas for group use and additional nature center space. As the population grows in the future, these deficiencies will increase.

VI. Existing Condition by Park Unit

As part of the landscape assessment, JMA completed a through inventory and analysis of the existing conditions of all park properties within Sully Woodlands. The information is based on existing documents, GIS analysis, and field reconnaissance surveys. A land cover map was developed to illustrate existing conditions (Figures 5-9—Land Cover,pp.48-52). The following table (Table 1—Summary of Existing Conditions by Park Unit, p. 26) provides a snap-shot of the existing conditions by park unit.

Table 1—Summary of Existing Conditions by Park Unit

Park Unit Name	Existing Facilities[3]	Easements/ Restrictions	Significant Natural Resources	Significant Cultural Resources[4]	Significant Visual Resources
BOS Transfer # 13 *(Poplar Ford)*		•	•	•	•
Cardinal Forest -Pleasant Valley *(Elklick Preserve)*		•	•		•
Centre Ridge		•			
Centre Ridge North	•				
Centreville Military Railroad		•		•	
Chalet Woods	•				
Chantilly		•			
Chantilly Library Site	•				
Coscan Brookfield		•	•		•
Cub Run	•	•	•		
Cub Run Stream Valley N		•	•	•	
Cub Run Stream Valley S		•	•	•	•
Eagle *(Hickory Forest)*			•		•
Elklick Run *(Elklick Preserve)*		•	•		•
Ellanor C. Lawrence Park	•	•	•	•	•
Fair Oaks			•		
Fair Ridge	•	•			
Fair Woods					
Flatlick Run Stream Valley			•	•	
Fox Valley		•			
Franklin Farm	•				
Franklin Glen	•				
Frog Branch Stream Valley		•	•		
Goochland *(Cub Run RECenter)*		•	•	•	•
Greenbriar	•	•	•	•	
Greenbriar Commons	•				
Horne *(Poplar Ford)*		•	•	•	•
Hunter-Hacor Core *(Elklick Preserve)*			•	•	•
Lanes Mill			•	•	•
Mt. Gilead *(Historic Centreville)*				•	•
Navy Vale					
Old Centreville Road				•	•
Ox Hill Battlefield				•	•
Pleasant Hill	•		•	•	
Poplar Tree	•		•	•	
Quinn Farm *(Rock Hill District)*			•	•	•
Richard W. Jones	•		•	•	•
Rocky Run Stream Valley E			•	•	
Rocky Run Stream Valley W			•	•	
Stephens *(Mountain Road District)*			•		•
Stone Crossing		•			
Sully Historic Site	•		•	•	•
VA Run-Hacor Proffer *(Elklick Preserve)*		•	•	•	•

[4] Excludes trails.
[5] Includes only identified cultural resources.

Part 3: Recommendations

I. Management Guidelines

The recommended guidelines were developed in consultation with the findings in the Landscape Assessment. Many expand on the strategies previously presented and are intended to preserve the unique resources and character of the region. These are general guidelines for developing park sites, while protecting existing resources. All final planning and development decisions should be determined by additional field analysis.

A. Stewardship

1. Natural Resources

♦ Promote the restoration and management of natural resources to improve their health and function.

a) Natural Communities

- Avoid disturbance or any development that will reduce patch size in forest patches of more than 100 acres and meadow patches of more than 50 acres.
- Prior to any development activities, areas should be inventoried for sensitive resources and, if found, state and federal guidelines for avoidance and minimizing impacts to those resources should be followed.
- Mitigate any changes to forest areas of 50-100 acres, or meadow habitats of 25 to 50 acres.
- Replant native forest or meadow species to offset removal of vegetation.
- Encourage the creation of wildlife corridors linking discontinuous forest patches as a part of development plans where appropriate.
- Avoid trail development within 100 feet of identified rare species sites.
- Mitigate any changes affecting conservation sites designated by Virginia Department of Conservation and Recreation.
- Identify specific resource management needs of rare species that require certain conditions to exist (for example, rare species that require prescribed burning to propagate), or are particularly susceptible to certain kinds of damage in order to determine compatible uses and management regimes for the specific site.

b) Water Resources

- All mitigation for impacted water resources should occur within the watershed.
- Mitigate any changes that may affect the habitat quality of stream corridors.
- Consider revegetating land in water resource areas not currently in native vegetation.
- Encourage more tree plantings in stream buffers and dry ponds.
- Prevent deforestation and other vegetation removal during and after the development of land in the watershed.
- Minimize impacts of trail and access development on surface water, soil permeability, native vegetation, and overland sheet flow of water.
- Mitigate development that affects any hydric soils determined not to be wetlands. These soils are poorly drained and tend to have a high water table.
- Implement sustainable stormwater management methods, such as low impact development techniques.
- Avoid clearing vegetation or developing land in Chesapeake RPAs.
- Preserve federally recognized wetlands as identified in the National Wetlands Inventory.
- Comply with the Fairfax County Stream Protection Strategy (SPS) goals and recommendations for mitigating development in the three management areas defined in the SPS.
- Support Cub Run and Bull Run Watershed Plan recommendations and coordinate with DPWES to implement projects on Park Authority property.

- Inventory vernal pools in each park and add them to protected water resources.
- Investigate areas of hydric soils, prior to planning any development that would affect them, to determine whether they contain wetland hydrologic patterns or hydrophytic plant communities. Document these areas and recommend them for inclusion in the National Wetland Inventory database. Preserve the areas subsequently identified as wetlands.

c) Soils

- Avoid disturbance in areas designated as highly erodible soils (erosion class 3); also areas of diabase and upland alluvial soils that are determined to support rare species or unusual plant communities, or that cover small areas lying within a larger, intact plant community.
- Use appropriate stormwater mitigation strategies for all new uses.
- Retain or install a vegetated buffer of appropriate native riparian species along waterways and wetlands wherever nearby development occurs.
- Mitigate impacts on areas of diabase and upland alluvial soils. These soils, like hydric soils, tend to be poorly drained and have a high water table; implement low impact stormwater management methods.
- Mitigate impacts of disturbance within areas of moderately erodible soils （erosion class 2). Use minimal grading and revegetate areas impacted by development.
- Revegetate areas of sensitive soils wherever possible with appropriate native species.
- Investigate diabase and upland alluvial soil areas through a field study to determine the presence of rare species and unusual plant communities associated with these soil types prior to planning any development that would affect them.

2. Cultural Resources

a) Concentration

- Uses in areas with a high concentration of known cultural resources should be limited to interpretive and educational use that does not compromise the resources.
- Active and intensive uses should be avoided in areas with a high concentration of known cultural resources.
- Protect and preserve archaeological resources in place. The preferable mitigation measure for potentially significant cultural resources is avoidance. If there is no alternative other than the disturbance of Uses in areas with a high concentration of known cultural resources should be limited to interpretive and educational use that does not compromise the resources.
- As part of the planning of any development, a cultural resource survey should be conducted to locate and identify any existing cultural resources. This will allow for the identification of resource protection areas and areas that may be developed.
- Investigate areas with resource potential to determine the presence or absence of cultural resources. Focus in particular on areas that are identified as having high potential for cultural resources, but where Phase I archaeological surveys have not yet been undertaken.

b) Importance

- Make every attempt to avoid disturbance to resources that are eligible or listed in the National Register of Historic Places, Virginia Landmarks Register or Fairfax County Inventory of Historic Sites. Mitigate and plan appropriately for new uses that impact National Register eligible or listed, or Virginia State Register

listed features, National Register historic districts, and County Historic Overlay Districts.

- Avoid non-compatible uses such as active recreational development or major visible utility uses on or within the viewshed of important sites.
- Mitigate the impacts of any limited, low-impact, passive uses on important resources, such as those needed to provide desired interpretive access to National Register listed sites.
- Before considering any new uses or facilities at National Register eligible or listed sites, or within Historic Overlay Districts, ensure changes would not affect the historical integrity of the site or district. Changes that adversely affect a National Register listed site or district may subject it to de-listing and loss of benefits associated with being listed in the National Register.
- Before considering any new uses or facilities within Historic Overlay Districts, ensure that proposed changes are compatible with the County's regulations for the historic district, and are subject to the appropriate review process.
- Ensure that impacts to National Register or Virginia Landmarks Register listed sites, or potentially eligible sites, are subject to Section 106 compliance review, as appropriate (if Federal funding or permits are involved in the project).
- If an existing historic building is adaptively reused as a support structure, consult the Secretary of the Interior's Standards for the Treatment of Historic Structures for appropriate mitigation.

3. Visual Resources

- Where cultural and natural resources create highly distinctive views, these views should be preserved by not locating intrusive features within their viewshed.
- Avoid placing intrusive features within areas having a high level of visual intactness.
- Install vegetative buffers as visual screens to surrounding areas when necessary.
- Consider the impacts to parks having high viewshed quality before removing or clearing vegetation within the park; and when visually intrusive development may occur on areas of land bordering the park and within its viewshed.
- Add or maintain vegetative buffers as visual screens when necessary to protect park views from surrounding intrusions. Support efforts to protect and augment the visual integrity of rural, low density areas, when possible.
- Work with landowners to secure scenic easements on adjacent undeveloped lands that are within a park's viewshed.

B. Recreation Development

- Develop facilities in areas of compatible land use.
- Facilities with anticipated high levels of use should be accessible from arterial roadways and where public water and sewer is accessible, whenever possible.
- Site facilities to accommodate potential future expansion, if possible.

1. Athletic Fields

- Develop fields appropriately in areas that are conveniently accessible to residents in the service area.
- Coordinate with the DOT and the VDOT to ensure adequate and safe access.
- Evaluate feasibility of installing artificial turf and lights at existing fields and schools sites to maximize use.
- Construct new fields in areas cleared of vegetation requiring minimal tree removal, when possible.

- Conduct archaeological study prior to construction of athletic fields to avoid disturbing sensitive cultural resources.
  - Locate away from interpreted cultural features to protect interpretive value of these sites.
  - Provide adequate on-site parking areas to reduce unsafe on-street parking situations and parking in adjacent residential neighborhoods.
  - Cluster fields where possible and provide amenities such as lighting, bleachers, restrooms and concession stands.
  - Provide a minimum 50-foot vegetative buffer when adjacent to residential areas to minimize visual and noise impacts.
  - Lighted facilities should be located to minimize impact on adjacent residences. A vegetative buffer should be provided to the extent practicable.
  - Support the Watershed Plan's non-structural action objective to ensure best management practices for turf management.

2. Community Serving Park Uses

- Provide local park facilities in proximity to neighborhoods and existing or potential trails.
- Develop local parks in areas that are lacking sensitive wildlife habitat, are not located in sensitive watersheds or resource protection areas, and do not have highly sensitive soils.
- Construct new facilities in areas that require minimal removal of trees.
- Provide visual screening when developing athletic courts or other local park uses in proximity to interpreted historic features to protect the interpretive value of a site.
- Provide one off-leash dog park facility within the project area. These fenced areas vary in size, depending on the number of dogs they are intended to accommodate, but generally should be a minimum of one acre. Dog parks should not be located in areas where they would impact sensitive wildlife communities.
  - Provide one neighborhood skate park in the more densely populated areas of the project area with trail access, preferably near middle and/or high schools.
  - Archaeological survey should be conducted prior to the construction of any facility that would require ground-disturbing activity.
  - Provide a minimum 50-foot vegetative buffer when adjacent to residential areas.

3. Special Uses

- Determine uses on a site-specific basis for areas identified for special uses. Potential uses may include, but are not limited to, reservable picnic areas with pavilions, model airplane and model rocket flying areas, orienteering areas, outdoor education areas, nature/research centers, visitor centers, and wildlife rehabilitation facilities.
- Encourage public-private partnerships to share in development costs and management of special use facilities.
- Additional investigation is necessary to determine whether site conditions, such as proximity to Dulles Airport, limit potential locations for certain special use facilities.

C. Education and Interpretation

1. Interpretive Value

- Balance resource sensitivity and interpretive value when considering appropriate uses and degree of access to resources.
- Consider developing interpretive uses in parks having resources with high interpretive value. Take into consideration the sensitivity of resources

and evaluate the best way to protect individual resources. If necessary, restrict visitor access to sensitive resources.

- Impacts to resources can be mitigated by designing and situating new additions or alterations to the landscape in such a way as to not destroy historic materials, features, and spatial relationships that characterize the landscape.
- Design new construction to be a product of its time, and compatible with adjacent historic resources in materials, size, scale and proportion, and massing. Differentiate new work from historic structures.
- Consider adaptive reuse of existing buildings and structures as part of the facility.
- Consider making new structures compatible with local traditions of design and material, and construct them of locally-available and indigenous materials such as stone and wood.
- Design and situate new additions and alterations to the landscape in such a way that, if removed in the future, the essential form and integrity of the landscape would be unimpaired.

2. Interpretive center/Research Center

- Locate a new regional-scale, permanently staffed interpretive center facility in the project area, proximate to the large natural areas west of Route 28 and south of Route 50 in the Sully Woodlands region. The planning and design of the interpretive center should do the following:
  - —Design facility so as not to intrude upon nearby natural resources, while still providing nature viewing and educational opportunities. Green building technique and materials, low impact development measures, and best management practices should be incorporated to the extent possible
  - —Provide a minimum building area of at least 6,000 square feet to accommodate visitor services, educational programs, and research and storage facilities.
  - —Provide a visitor and staff parking area large enough to accommodate a minimum of 30 vehicles.
  - —Provide outdoor facilities such as educational or interpretive areas, including trails and nature viewing stations.
  - —Provide screening as needed to protect viewshed.
  - —Develop a gateway to the trail and interpretive network.
  - —Limit lighting to parking, building perimeters, and times of use.

Example of Interpretive Center

- Provide staff based in the interpretive center to manage non-recreational parkland, provide educational and visitor services, conduct research and natural resource management activities, and work with state staff in the management of the Elklick Woodlands Natural Area Preserve.
- Provide opportunities to work with staff from educational institutions, specialty organizations and others to become a regional research facility and outdoor lab.

3. Signage and Interpretation

- Provide interpretive, regulatory, and directional signs at trailheads, gateways, important interpretive sites, major public facilities and recreation areas.

- Coordinate with DPWES to develop watershed education activities at parks, the interpretive center, and within the watershed.
- Provide information about Sully Woodlands through brochures, kiosks, and programs at existing facilities at Ellanor C. Lawrence Park, Sully Historic Site, and the Cub Run RECenter.
- Develop camps, classes and other programs that take advantage of the rich natural and cultural resources of the region.
- Provide pavilions, picnic areas and other amenities as a base for camps and classes in areas where no other facilities are located.
- Provide trail connections, parking, and other visitor amenities at interpretive sites.

D. Connectivity

Develop an overall trail plan for Sully Woodlands addressing all elements of connectivity. Initial trail connections have been identified through staff and public input from the workshop series. Connections should be refined and expanded in the trail plan (Figure 10—Planned Trail Connections,p. 52).

1. Greenways

- Seek to acquire additional land to create protected corridors between large tracts of parkland.
- Protect streams, wetlands, and floodplains by providing parkland buffers around them.
- Protect highly sensitive wildlife habitat areas from development.

2. Blueways

- Identify water features that have adequate water depth, gently sloping shorelines, and relatively close access to parking that may be appropriate to serve as "blueways" or water corridors for recreation.
- Identify areas with a stable surface and gentle enough grade to allow put-in of small watercraft.
- Fishing docks should be simple wooden structures with wooden pilings. Due to the small-scale of the water features within the project area, concrete docks are not appropriate.

3. Multi-use Trails

- All planning and development projects within the project area should include trail connections, including internal park trails from facility to facility as well as connections between park units.
- At major and secondary road crossings, evaluate the need for signalized crossing and other safety measures.
- Make use of existing utility easement corridors where possible to provide trail connections.
- Provide adequate buffer between trail and identified sensitive resources.
- Prior to any trail construction the area should be examined for the presence of cultural resources.
- Avoid locating trails on or near sensitive cultural resources that need protection.
- All trails should be sited in the field.
- Trail surface should be selected for use and sustainability. A range of trail surfaces should be provided in the project area.

4. Equestrian Trails

- Locate in areas that can accommodate necessary horse trailer parking and other equestrian amenities such as watering areas and washing/grooming areas.
- Provide connections to existing equestrian facilities and trails in the area.
- Provide and maintain adequate width and vertical clearance. Partner with citizen volunteers to assist in trail maintenance.
- Grades should generally not exceed 5 percent, but may be up to 10 percent for short stretches.

- Avoid locating trails within sensitive plant communities and habitat conservation areas to reduce the spread of weedy and exotic invasive plants, which may be carried into sites via hooves and manure.

E. Operations and Management

- Develop an overall operations and management plan to address all elements of managing the parkland within Sully Woodlands. The document should establish clear strategies for operating Sully Woodlands and set priorities for expanded operations and management activities. The operations and management plan should address the implementation of land management activities.
- Coordinate management and operations of unstaffed parks in Sully Woodlands through Area 5 Management. Area Management will manage sites cooperatively with other agency divisions as appropriate.
- Increase staffing, equipment inventories, and operation budgets proportionate to any increases in the number of facilities and/or management activities to sustain service levels.
- Improve Area 5 shop and yard to allow for storage of materials, equipment, and supplies required for daily operations.
- Employ environmentally sensitive management practices.
- Develop and implement strategy for resource management.
- Develop volunteer program to assist in appropriate management activities, such as trail maintenance, stream clean-up, or invasives removal.

II. Use Recommendations

Recommendations for each park unit have been organized into four use zones. These zones are derived from the types of resources and their sensitivity level, existing site conditions, and context. These zones correspond to the type or intensity of recreation development appropriate in each area, based upon the needs assessment and potential impacts associated with each use. In addition, points of interpretation, gateways, and trail connections are identified. Together, all these elements create a framework for the park network in Sully Woodlands (Figures 11-15—Land Use Recommendations,pp. 53-57).

The delineation of these zones, gateways, points of interpretation, and trail connections illustrate the approximate location of uses and is intended to provide general guidance for planning purposes. Further site analysis will be required to determine the specific locations of facilities.

A. Region-wide Recreation Zone

This zone consists of the most intense recreation development including multi-use rectangle fields, diamond fields, and golf courses, including associated parking, stormwater management, trails, and visitor amenities such as restrooms and water fountains. These facilities are expected to draw users from across the project area. New region-wide recreation zones are recommended in areas with fewer and/or less sensitive resources. Proposed athletic fields are recommended to be lit and irrigated. Artificial turf should also be considered for rectangle fields to maximize use. Though the actual number cannot be determined until further design and site engineering is completed, it is estimated that the number of new athletic fields to be provided ranges from a minimum of 10 to a maximum of 25.

Complementary local park uses, such as multi-use courts, playgrounds, tot lots, neighborhood skate parks, and picnic pavilions are appropriate for this zone. A 50-foot vegetative buffer should be provided where adjacent to residential areas to limit noise and visual impact.

B. Community Serving Recreation Zone

The community serving recreation zone contains recreation development that is less intense and with a smaller footprint than the region-wide recreation zone. The zone tends to be located within walking distance to residential neighborhoods. Appropriate uses for this zone include multi-use courts, playgrounds, tot lots, tennis courts, dog parks, neighborhood skate parks, picnic areas, open play areas, trails, and basic visitor amenities. Some facilities may be lit, such as multi-use courts or skate parks. Some facilities may require parking, vehicular access, and stormwater management. A 50-foot vegetative buffer should be provided where adjacent to residential areas to limit noise and visual impact.

C. Special Use Zone

Special use zones have site constraints that limit potential development, but may contain unique features and be appropriate for specific uses. Development with relatively small footprints, such as an interpretive center, re-servable picnic pavilions, and equestrian support facilities are recommended for many of the special use zones. Additional field investigation is needed to determine the appropriateness of other uses in these zones.

D. Resource Stewardship Zone

Resource stewardship zones contain sensitive natural and cultural resources requiring protection. Preservation and management activities are the main priority in resource stewardship zones with most new uses not recommended for these areas. Depending on site conditions, limited development for interpretive purposes may be appropriate including trails, signage, and basic visitor amenities. Due to sensitive resources, public access may be limited in particular areas.

E. Points of Interest

Numerous points of interest have been identified to form the basis of the interpretive network. These points include historic sites, existing facilities with interpretive potential, and scenic resources. The sites will serve as the backbone for the overall interpretive program at Sully Woodlands. As further resource reconnaissance is completed, additional points of interest will be incorporated.

F. Gateways

Gateways are located where multiple trails converge providing an opportunity for an orienting/hub point for trail users. Many identified gateways are co-located with other facilities such as Cub Run RECenter, Ellanor C. Lawrence Park visitor center, or the interpretive center. In addition to orientation and interpretive signage, parking and visitor amenities such as restrooms benches, bike racks, and small shelters should be provided.

G. Major Trail Connections

All the park elements are tied together by several major trail connections allowing Sully Woodlands to function as a system. The connections will consist of a variety of trail types and surfaces, some already existing within parkland or along roads. Land acquisition may be needed to complete some connections.

III. New Development Recommendations by Park Unit

Based on the existing conditions and analysis, development possibilities were recommended for each park unit, presented in the following table (Table 2—New Development Recommendations by Park Unit, pp. 36-38). These recommendations only address additional facilities and do not include existing facilities or all management and interpretive activities. Trails are anticipated at all park sites and, therefore, are not included in the table. Subsequent planning and design will be needed to further refine all recommendations.

Table 2—New Development Recommendations by Park Unit

Highlighted text denotes Core Properties

Park Unit	Zone	New Development Possibilities
Poplar Ford (BOS Transfer #13)	Resource Stewardship Zone	Interpretation coordinated with Manassas National Battlefield Park, equestrian trail connections
Elklick Preserve (Cardinal Forest-Pleasant Valley West)	Resource Stewardship Zone	
Centre Ridge	Community Serving Recreation Zone	Limited opportunity to add a court or small dog park area
Centre Ridge North	Region-wide Recreation Zone	Upgrade existing open field to athletic field
Centreville Military Railroad	Resource Stewardship Zone	Interpretation
Chalet Woods	Community Serving Recreation Zone	Limited opportunity for additional local park uses.
Chantilly	Region-wide Recreation Zone	New athletic fields
Chantilly Library	Region-wide Recreation Zone	Multi-use courts, skate park or dog park. Additional parking to support Chantilly Park uses. Recommend replanning Chantilly and Chantilly Library together.
Elklick Preserve (Coscan-Brookfield)	Resource Stewardship Zone	
Cub Run RECenter	Special Use Zone	Gateway location. Playground, tot lot, picnic areas. Maintain plan for Field House.
Cub Run Stream Valley North	Resource Stewardship Zones	
	Community Serving Recreation Zone to east along Route 28	Multi-use courts, open play areas, picnic areas
	Community Serving Recreation Zones to west	Playground, tot lot, open play areas
Cub Run Stream Valley South	Resource Stewardship Zone	Gateway location at Route 29.
	Community Serving Recreation Zone	Multi-use courts, dog park
Hickory Forest (Eagle)	Community Serving Recreation Zone	Tot lot, multi-use courts
	Resource Stewardship Zone	Interpretation
Elklick Preserve (Elklick Woodlands Natural Area Preserve)	Resource Stewardship Zone	Interpretation as recommended in Natural Resource Management Plan to be completed
Ellanor C. Lawrence Park	Resource Stewardship Zone	Gateway location. Recommend initiating a new master plan.
	Community Serving Recreation Zone	
	Region-wide Recreation Zone	

Table 2 con't—New Development Recommendations by Park

Park Unit	Zone	New Development Possibilities
Fair Oaks	Community Serving Recreation Zone	Open play area, picnic area, multi-use courts, playground, dog park
Fair Ridge	Resource Stewardship Zone	
	Community Serving Recreation Zones	Playground, tot lot, multi-use courts
Fair Woods	Region-wide Recreation Zone	Athletic field
	Community Serving Recreation Zone	Local park uses (playground, tot lot, multi-use courts, picnic area), with parking.
Flatlick Run Stream Valley	Region-wide Recreation Zone	Athletic field
Fox Valley	Region-wide Recreation Zone	Athletic field (parking co-located at school)
Franklin Farm	Region-wide Recreation Zone	
Franklin Glen	Region-wide Recreation Zone	
Frog Branch Stream Valley	Community Serving Recreation Zone	Playground, tot lot, open play area, picnic area
Cub Run Stream Valley North (Goochland)	Special Use Zone	Maintain plan for Cub Run RECenter Field House.
Greenbriar	Region-wide Recreation Zone	Playground, picnic area, multi-use courts
Greenbriar Commons	Community Serving Recreation Zone	
Poplar Ford (Horne)	Special Use Zone (south of Bull Run Post Office Road)	Interpretation coordinated with Manassas National Battlefield Park. Only feasible location for a model airplane flyover area, pending archaeological studies and assessments of environmental, noise, and visual impacts.
	Special Use Zone (north of Bull Run Post Office Road)	Southern Gateway to Sully Woodlands--parking, horse trailer parking, kiosks, reservable picnic pavilions.
	Resource Stewardship Zone	Interpretation, water access to Bull Run, equestrian trail connection to Manassas National Battlefield Park
Elklick Preserve (Hunter-Hacor Core)	Resource Stewardship Zone	
	Special Use Zone (south of Braddock Road)	Could accommodate a small model rocket launch area, pending archaeological study.
	Special Use Zone (along Pleasant Valley Road)	Gateway location. Interpretive Center with a nature-viewing deck and/or tower functioning as a base for Sully Woodlands resource management.

Table 2 con't—New Development Recommendations by Park

Park Unit	Zone	New Development Possibilities
Elklick Preserve (Hunter-Hacor Core) (con't)	Special Use Zone (along Loudoun County border)	Equestrian riding ring, horse trailer parking, possible future equestrian facility, orienteering, managed hunts and/or natural resource education activities (possibly associated with programs based at the Interpretive Center or pavilions at Stephens). All uses would be by permit.
Lanes Mill	Resource Stewardship Zone	Interpretive enhancements
Mount Gilead (Historic Centreville)	Resource Stewardship Zone	Implement recommendations of the Cultural Landscape Report.
Navy Vale	Community Serving Recreation Zone	
Old Centreville Road	Region-wide Recreation Zone	Athletic field, multi-use courts, playground, open play area, picnic area
Ox Hill Battlefield	Resource Stewardship Zone	Implement Master Plan
Pleasant Hill	Community Serving Recreation Zone	
Poplar Tree	Resource Stewardship Zone	
	Region-wide Recreation Zone	
Rock Hill District (Quinn Farm)	Resource Stewardship Zone	Implement Master Plan
	Region-wide Recreation Zone	
Richard W. Jones	Resource Stewardship Zone	
	Region-wide Recreation Zone	
Rocky Run Stream Valley East	Resource Stewardship Zone	
	Community Serving Recreation Zone	Picnic area, athletic courts, open play area
Rocky Run Stream Valley West	Resource Stewardship Zone	
	Community Serving Recreation Zone	Open play area, athletic courts, picnic area
Mountain Road District (Stephens)	Resource Stewardship Zone	
	Region-wide Recreation Zone	Athletic fields
	Special Use Zone	Reservable picnic pavilions for large gatherings. Consider coordinating parking with Quinn Farm for large groups.
Stone Crossing	Resource Stewardship Zone	
	Community Serving Recreation Zone	Playground, athletic court, picnic area, open play area
Sully Historic Site	Resource Stewardship Zone	Implement Master Plan
	Special Use Zone	
Elklick Preserve (VA Run-Hacor Proffer)	Resource Stewardship Zone	

Part 4: Next Steps

This document is just the first step in the creation of a park system in Sully Woodlands. This section identifies potential next steps in the planning process.

I. Recommendations

The prioritization of activities will help the Park Authority direct staffing and financial resources to implement the Regional Master Plan. In addition, intermediate activities may occur to open the Core Properties to the public, such as interim use agreements, which are not included.

Each activity is assigned a priority:

- ***High Priority***—Immediately needed and should begin following approval of the Regional Master Plan and be completed within 1 to 2 years. Assigned to activities associated with planning of Core Properties, key resource assessments, and priority project-wide planning projects.

- ***Medium priority***—Begin following completion of high priority activities, within 3 to 5 year timeframe. Assigned to remaining project-wide planning projects, coordination activities, planning of additional athletic fields at existing parks, resource assessments at Core Properties and some existing parks.

- ***Low priority***—Begin following completion of high and medium priority activities. Assigned to planning of additional local park uses and remaining resource assessments activities.

The following tables list the identified project-wide and park specific recommendations for next steps.

Table 3—Next Steps: Project-wide Recommendations

Study/Activity	Description	Priority
Trail Plan	Develop a comprehensive Trail Plan for Sully Woodlands.	High
Operations & Management Plan	Develop a comprehensive Operations and Management Plan for Sully Woodlands. Focus on implementing land management activities.	High
DPWES Coordination	Coordinate with DPWES in the development and implementation of the Cub Run and Bull Run Watershed Management Plan.	High
Interpretive Plan	Develop a comprehensive Interpretive Plan for Sully Woodlands.	Medium
Business Plan	Develop a high priority list and implementation plan for potential revenue generating uses and activities in project area.	Medium
Fairfax County Public Schools (FCPS) Coordination	Coordinate with FCPS on athletic field use on schools and park land to maximize recreation opportunities provided in Sully Woodlands.	Medium
Loudoun County Coordination	Coordinate with Loudoun County on development plans and recreational development that impact Sully Woodlands.	Medium
Partner Coordination	Coordinate with key partners who provide recreational services in the Sully Woodlands region including Northern Virginia Regional Park Authority, National Park Service, Cox Farm and equestrian service providers.	Medium

Table 4—Next Steps: Park Specific Recommendations

Highlighted text denotes Core Properties

Park Unit	Description	Priority
Poplar Ford (BOS Transfer #13)	Conceptual Development Plan and 2232 for Core Properties	High
	Determine rare species management needs	High
	Inventory potential cultural resource sites associated with Sudley Ford & Carter's Mill and Manassas Gap Railroad berm and abutments.	High
	Natural Resource Management Plan	Medium
Elklick Preserve (Cardinal Forest-Pleasant Valley West)	Conceptual Development Plan and 2232 for Core Properties	High
	Determine rare species management needs	High
	Natural Resource Management Plan	Medium
	Investigate presence of specific natural resource features such as vernal pools; investigate hydric soils to determine potential for additional wet-lands	Medium
	Phase I archaeological survey with particular attention to diabase soils	Medium
Centre Ridge	Assess need for Conceptual Development Plan and 2232, if needed	Medium
	Investigate areas of diabase soils for unusual vegetative communities	Medium
Centre Ridge North	Archaeological assessment of possible civil war sites	High
Centreville Mili-tary Railroad	Identify parcels with remnants of military railroad and monitor for ease-ment or acquisition	High
Chalet Woods	Master Plan Revision, if needed to accommodate additional uses	Low
	Natural Resource Management Plan	Low
Chantilly	Conceptual Development Plan with Chantilly Library Site, possible 2232	Medium
Chantilly Library Site	Conceptual Development Plan with Chantilly, possible 2232	Medium
Elklick Preserve (Coscan Brookfield)	Conceptual Development Plan and 2232 for Core Properties	High
	Archaeological assessment of potential cultural resources	Medium
	Natural Resource Management Plan	Low
Cub Run RECenter	Master Plan Revision, if needed to accommodate additional uses	Low
Cub Run Stream Valley North	Archaeological assessment of potential cultural resource sites	High
	Inventory vernal pools	High
	Natural Resource Management Plan	Medium
Cub Run Stream Valley South	Investigate hydric soils to determine potential for additional wetlands	High
	Investigate diabase soils for rare vegetative communities	High
	Archaeological assessment of potential cultural resources	High
	Natural Resource Management Plan	Medium
Hickory Forest (Eagle)	Conceptual Development Plan and 2232 for Core Properties	High
	Archaeological surveys of potential cultural resources	High
	Natural Resource Management Plan	Medium
Elklick Preserve (Elklick Wood-lands Natural Area Preserve)	Conceptual Development Plan and 2232 for Core Properties	High
	Natural Resource Management Plan	High
	Archaeological surveys of potential cultural resources	High
Ellanor C. Law-rence Park	Archaeological surveys of potential cultural resources	High
	Natural Resource Management Plan	Medium
	Master Plan Revision, possible 2232	Medium

Table 4 con't—Next Steps: Park Specific Recommendations

Fair Oaks	Conceptual Development Plan and 2232, if needed to accommodate additional uses	Low
Fair Ridge	Archaeological assessment of potential cultural resource sites	Medium
	Master Plan Revision and 2232, if needed to accommodate additional uses	Medium
Fair Woods	Archaeological assessment of potential Native American sites	Medium
	Conceptual Development Plan and 2232 for proposed development	Medium
Flatlick Run Stream Valley	Additional archaeological testing of potential cultural resource sites	High
	Investigate hydric soils to determine potential for additional wetlands	Medium
	Conceptual Development Plan and 2232 for proposed development	Medium
Fox Valley	Archaeological assessment of potential Native American sites	Medium
	Conceptual Development Plan and 2232 for proposed development	Medium
	Investigate hydric soils to determine potential for additional wetlands	Low
Franklin Farm	Investigate hydric soils to determine potential for additional wetlands	Low
Franklin Glen	Additional archaeological testing of potential cultural resources sites	Medium
Frog Branch Stream Valley	Archaeological investigation of civil war site	High
	Natural Resource Management Plan	Low
	Conceptual Development Plan and 2232 for proposed development	Low
Cub Run Stream Valley North (Goochland)	Inventory vernal pools	Medium
	Natural Resource Management Plan	Low
Greenbriar	Investigate diabase soils for unusual plant communities	Low
	Investigate stone wall to determine its condition & interpretive opportunity	Low
Greenbriar Commons	Archaeological surveys to identify additional cultural resources	Low
Poplar Ford (Horne)	Conceptual Development Plan and 2232 for Core Properties	High
	Archaeological investigations prior to any development	High
	Natural Resource Management Plan	High
Elklick Preserve (Hunter-Hacor)	Conceptual Development Plan and 2232 for Core Properties	High
	Archaeological resource assessment for potential sites throughout property	High
	Natural Resource Management Plan	Medium
Lanes Mill	Archaeological assessment	High
Mt. Gilead (Historic Centreville)	Archaeological assessment	High
Navy Vale	*No next steps anticipated at this time*	
Old Centreville Road	Master Plan Revision and possible 2232 to accommodate additional uses	Medium
Ox Hill Battlefield	Cultural Resource Management Plan as recommended in Master Plan	High
Pleasant Hill	Archaeological assessment	Medium
Rock Hill District (Quinn Farm)	2232 for permanent uses associated with approved Master Plan; preserve important Native American archaeological site.	High
Poplar Tree	Natural Resource Management Plan	Low
Richard W. Jones	Natural Resource Management Plan	Low
	Inventory vernal pools	Medium
Rocky Run Stream Valley East	Natural Resource Inventory including investigation for potential vernal pools and wetlands	Medium
	Natural Resource Management Plan	Medium
	Conceptual Development Plan and 2232 to accommodate additional uses	Low

Table 4 con't—Next Steps: Park Specific Recommendations

Rocky Run Stream Valley West	Archaeological investigations to identify cultural resources	Medium
	Conceptual Development Plan and 2232 to accommodate additional uses	Low
Mountain Road District (Stephens)	Conceptual Development Plan and 2232 for Core Properties	High
	Natural Resource Management Plan	Medium
	Inventory vernal pools	Medium
Stone Crossing	Conceptual Development Plan and 2232 to accommodate additional uses	Low
Sully Historic Site	Archaeological investigations prior to any development	High
	GIS mapping of cultural resources	Medium
	Natural Resource Management Plan	Low
Elklick Preserve (VA Run-Hacor)	Conceptual Development Plan and 2232 for Core Properties	High
	Natural Resource Management Plan	Medium
	Inventory vernal pools	Medium

II. Land Acquisition

To further improve and enhance the park system in Sully Woodlands, the following land acquisition needs have been identified and should be pursued in the future:

- In-holdings
- Improved trail connectivity
- Improved water access
- Land appropriate for development of athletic fields and/or a large special event facility
- Protection of natural and cultural resources

III. Revisions to the Regional Master Plan

This document will help guide site specific planning activities. As these properties are planned and/or developed, this Regional Master Plan will be used to ensure any proposed development is in accordance with the use zones identified in this plan, though additional site analysis may result in refinements and revisions to the zones. The Regional Master Plan should be administratively revised to reflect subsequent site-specific planning projects involving a public process, such as Conceptual Development Plans approved by the Park Authority Board and 2232 determinations reviewed by the Planning Commission. The Regional Master Plan should be periodically reviewed to ensure the plan remains relevant and useful.