



## Welcome to the Bull Run Marina Regional Park Planning Website



The Northern Virginia Regional Park Authority has recently created a DRAFT General Management Plan (GMP) for 100.3 acres at Bull Run Marina Regional Park. The GMP will help guide future planning and resource management at Bull Run Marina Regional Park.

The GMP for Bull Run Marina Regional Park includes the following:

- Identification of park mission, purpose and significance statements
  - An inventory and description of the existing recreation facilities
  - An inventory and description of the existing natural resources
  - A history, inventory and description of the existing cultural resources
- Identification of various park resource management zones and a description of the activities appropriate for each zone

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A key element in the NVRPA park planning process is public involvement. The Regional Park Authority will conduct a public meeting for this plan in early Spring 2007; date and time to be announced and posted on this website. Copies of the planning document noted above can be obtained by contacting NVRPA Planning and Development Department at 703-352-5900. Questions regarding the Bull Run Marina Regional Park Planning Process or this webpage should be directed to the NVRPA Planning and Development Department at 703-352-5900.

DRAFT  
General Management Plan  
Bull Run Marina Regional Park



November 10, 2006

# **BULL RUN MARINA REGIONAL PARK**

**Draft**

## **General Management Plan**

Prepared for  
THE NORTHERN VIRGINIA REGIONAL PARK AUTHORITY

### **NVRPA BOARD MEMBERS**

William C. Dickinson, Chairman  
Joan G. Rokus, Vice Chairman  
James I. Mayer, Treasurer  
Judy Braus  
Barry D. Buschow  
Arthur F. Little  
John G. Milliken  
David M. Pritzker  
Jean R. Packard  
Jeffrey Tarbert  
Su Webb

**EXECUTIVE DIRECTOR**  
Paul A. Gilbert

### **ACKNOWLEDGMENTS**

This General Management Plan (GMP) was developed through the collective and dedicated efforts of the NVRPA planning team.

#### **NVRPA PLANNING TEAM MEMBERS:**

Claire Blanchard, Planning Coordinator and GMP Team Leader  
Todd Hafner, Director, Planning and Development  
Paul McCray, Director, Park Operations  
Julie Kutruff, Park Operations Superintendent  
James Short, Park Manager

#### **CONSULTING SERVICES PROVIDED BY:**

Rhodeside and Harwell, Inc  
CH2M Hill  
John Milner Associates

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## **INTRODUCTION**

As described in its mission statement: “The Northern Virginia Regional Park Authority enhances the communities of Northern Virginia and enriches the lives of their citizens through the conservation of regional natural and cultural resources. It provides diverse regional recreational and educational opportunities, and fosters an understanding of the relationships between people and their environment.”

Northern Virginia Regional Park Authority’s *Policy Plan*, supported by the mission statement, establishes policies and procedures to guide the Authority in the planning, management, operation and administration of the regional park system. It articulates the role of the Park Authority and includes a Park Classification System that provides the framework for development and revision of individual park management plans. Individual park management plans, in turn, provide the basis for development and operation of each park.

Creation of a park’s General Management Plan (GMP) should be viewed as the first part of an integrated park planning process. All future plans and projects for a park will be consistent with the direction established in the park GMP.

Typically, more detailed implementation plans such as Resource Management Plans, Conceptual Development Plans or Interpretive Plans, detailing specific uses and management practices for each park, may be generated, consistent with the approved GMP. Implementation plans and future projects are prioritized and funded through the five-year Capital Improvement Program (CIP).

The park General Management Plan is subject to review as park conditions and needs change with time and use. The Authority will continue to review and amend the plan with input and coordination with the citizens of NVRPA’s six member jurisdictions, user groups and community groups, to better serve public and community interests.

## **I. THE PLANNING PROCESS**

Park planning integrates the Authority's long-term goals and objectives with its management policies in support of its vision and mission.. A strategic plan outlines the process and actions which will be implemented to achieve objectives and goals including: land acquisition, future development and operations of regional parklands during a specified period of time. The General Management Plan is a tool used in this process.

### **A. THE GENERAL MANAGEMENT PLAN**

General Management Plans (GMP's) are developed by Authority staff in planning the potential uses for each individual park and identifies appropriate areas within the park to support them.

Seven key elements form the foundation of a General Management Plan (GMP) and are guided by the Northern Virginia Regional Park Authority (NVRPA) *Policy Plan*. The scope of the elements, the order in which they are initiated and the methods used to complete them may vary in different situations, however, all elements are necessary to implement a General Management Plan.

Key elements include: assembling an interdisciplinary project team; developing a public involvement strategy; developing statements of Park mission, purpose and significance; analyzing existing resources; describing potential uses and resource conditions; allocating management areas or zones within the park; and recommending management action plans. Public comment on the draft GMP is considered throughout the process, prior to finalization and adoption by the NVRPA Board.

### **B. PURPOSE OF THE GMP**

Created to fulfill the stated goals and objectives of the Northern Virginia Regional Park Authority as described in the *NVRPA Policy Plan*, the GMP serves as a guide to ensure that resource protection and recreational facility development remain balanced and compatible with one another.

The *Policy Plan* includes a park classification system that helps focus planning for individual parks. This system categorizes each of NVRPA's twenty parks based upon the purpose and defining criteria for that type of park.

Mission, purpose and significance of a park are derived from its classification and form the foundation of park planning. Demographics and adjacent land uses are also considered in development of a GMP to provide a context for future planning.

- Park Mission states the broad vision for the future of a specific park, supporting the overall mission of the Northern Virginia Regional Park Authority.
- Park Purpose defines the specific reasons why a park was created and included in the NVRPA system.

- Park Significance clearly articulates the most important aspect of park resources and values, based upon the park purpose.

Extensive research is conducted to determine the existing natural and cultural resources within the park and to identify park facilities and recreational opportunities. Based upon this research, resource management zones have been established, accompanied by potential uses for each zone. From this research, primary interpretive themes can be identified in the GMP to help identify the visitor opportunities that could be provided in the park. These management zones and their permitted uses will serve to control all future development of the park. With a finalized GMP, other, more detailed management plans can be undertaken. Suggestions for additional plans, future projects and further studies are identified in each General Management Plan.

### **C. GOALS AND OBJECTIVES OF THE GMP**

Goals and objectives are visions for the future of the Regional Park Authority. The goals and objectives of a General Management Plan support the larger goals and objectives of NVRPA as stated in the *Policy Plan*.

- GOAL: Meet park planning, development and operations challenges using innovative solutions.
  - Provision of a clear direction for management decisions by the General Management Plan, based upon the purpose of the park, contributes to effective decision-making, flexible planning and management of the park.
- GOAL: Acquire, protect and manage natural and cultural resources by developing and implementing long-range strategies.
  - Establishment of a database of existing park resources inventories provides up-to-date information necessary for determination of appropriate management actions and identification of lands for potential acquisition.
- GOAL: Balance facility development and high quality service.
  - Consideration of citizen input and demographics of potential park focus planning efforts upon the visitor's needs and desires. With this information, the Capital Improvement Plan can be developed.
- GOAL: Manage park resources through the establishment of specific use areas.
  - Identification of one or more resource management areas or "zones" for the entire park site, bases uses and management actions on the park mission, purpose and significance, existing park resources and impact guidelines established for each resource management zone.

(Refer to Appendix A, *NVRPA Policy Plan, Goals and Objectives*, for details.)

#### D. NVRPA PARK CLASSIFICATION SYSTEM

The NVRPA Park Classification System, as defined in the NVRPA *Policy Plan*, includes six categories, each with its own defining purpose and criteria. These criteria identify the purpose of each park; provide resource management and use policies and planning and development guidelines for the park. While the system is comprehensive, it is not mutually exclusive. Parks may qualify for more than one classification.

#### NVRPA PARK CLASSIFICATION SYSTEM

Regional Shoreline Park	Preserves land along rivers and other regionally significant water bodies for public use and enjoyment. The purpose is to protect valuable water resources of the region, to promote public access to these water resources and to enhance the recreational, educational, environmental and scenic value of regional water bodies.
Regional Trail and Greenways Park	Provides a linear corridor along streams, rivers and other natural landscapes. Primarily for pedestrian, equestrian and bicycle uses, a regional trail or greenway may extend through two or more jurisdictions or link components of the regional park system.
Regional Recreational/ Special Multi-Use Park	Contains recreational facilities that, because of their specialized nature, cost or demand, are not generally offered by local park and recreation agencies.
Regional Conservation Park	Places in public ownership large tracts of undeveloped land to protect and preserve the land's unique environmental, ecological or scenic value.
Regional Historical Site	Preserves structures, archaeological sites, battlefields and cemeteries deemed significant to the history of Northern Virginia.
Regional Land Bank	Provides NVRPA with an administrative mechanism to hold undedicated lands on a temporary basis pending a decision on classification.

(Refer to Appendix B, *NVRPA Policy Plan, Park Classification System*, for details.)

## **E. MANAGEMENT FRAMEWORK**

From the information derived from park resource inventories and the resulting constraints and opportunities identified within the park site, a framework for park resource management was developed. The management framework integrates the research, site analysis and basic data information about the park into the General Management Plan by designating specific resource management areas.

### **Resource Management Zones**

Resource management areas or “zones” define particular areas within a park that share similar management concerns and challenges. Each resource management zone has a unique combination of park resources, visitor and facility uses and a defined management direction, consistent throughout all NVRPA properties.

Recommendations for appropriate kinds and levels of activity, included in the following glossary of potential uses and consistent with the goals of the park, determine what activities should and should not occur within each management zone.

Evaluation of proposed activity or project is based upon a variety of factors in addition to potential impacts on cultural and natural resources described in the GMP. Different management actions may be taken in different zones depending upon the types and levels of uses and facilities and their anticipated impact on the existing park resources. Inclusion in the list of potential uses does not indicate that such use would automatically be approved or endorsed by NVRPA. Other factors influencing management actions may include the availability of capital funding, availability of park staff and maintenance resources and the impact on adjacent properties and existing park activities.

### **Zone Descriptions**

#### **SENSITIVE RESOURCE PROTECTION ZONE**

Identifies a protected area or fragile feature that may be lost through human impact, such as areas of threatened or endangered species, prehistoric site or historic feature. Neither visitors nor development will be permitted within these areas.

Potential uses permitted:

- Research
- Resource protection
- Resource management

#### **NATURAL RESOURCES PROTECTION ZONE**

Protects existing habitats and identifies areas that warrant restoration. May include areas identified as an outstanding resource or areas considered un-developable because of site constraints. Human impact to these areas shall be minimal; environmental degradation will be prohibited. Vehicular traffic, structures and facilities will be strictly regulated.

Potential uses permitted:

Research  
Resource management  
Interpretation and education  
Low impact recreation  
Limited support infrastructure

#### CULTURAL RESOURCES PROTECTION ZONE

Protects existing cultural resources, and provides opportunities for educational and interpretive use. Cultural resources may exist within any other zone. Cultural resource surveys will be undertaken prior to any land disturbing activity.

Potential uses permitted:

Research  
Resource management  
Interpretation and education  
Low impact recreation  
Limited support infrastructure  
  
Historic restoration

#### RECREATION ZONE

Provides visitors with a variety of recreational experiences. May include existing or future recreational facilities, park infrastructure and visitor services. Research and analysis of potential cultural or natural resources will be completed prior to any site development or land disturbing activity.

Potential uses permitted:

Research  
Resource management  
Education/ Interpretation  
Low impact recreation  
High impact recreation  
  
Support infrastructure

#### **F. GLOSSARY OF POTENTIAL USES:**

- **LOW IMPACT RECREATION** – Includes recreational activities that are determined to cause minimal disturbance to the park’s natural and cultural resources and require little if any infrastructure. Many recreational activities could be categorized as low impact or high impact depending upon their intensity

and frequency of use. For example, most hiking trails would likely be categorized as low impact. However, if a hiking trail were heavily utilized to the point at which it caused severe environmental degradation, the trail activity could be classified as a high impact recreational use.

- **HIGH IMPACT RECREATION** – Includes recreational activities that are determined to cause noticeable but acceptable levels of disturbance to the park’s resources. High impact recreational activities may require substantial infrastructure development. Examples of high impact recreational activities may include golfing, organized sports requiring athletic fields and picnic areas requiring large shelters and parking areas.
- **INTERPRETATION AND EDUCATION** – Involves communicating information specific to the significance of the park, including the unique characteristics of the resources associated with the park and the relationships of human and natural systems, to increase visitor enjoyment and involvement in resource protection. Interpretive programs and educational workshops, brochures, displays and signage at the park are methods of conveying this information.
- **RESOURCE MANAGEMENT** – Involves the understanding of natural processes, recognition of human influence upon the land and the need for stewardship of that land. Resource Management Plans will establish guidelines for managing natural, cultural, recreational or facility resources existing within the park. The selection, integration and implementation of resource management plans and actions will be based upon ecological, sociological and economical consequences of the proposed action on park resources. These plans and recommended actions may include protection, mitigation, interpretation, monitoring and administration of park resources.
- **RESEARCH** – Involves the investigation aimed at the discovery and interpretation of facts, the revision of accepted theories or the development of practical applications in light of new facts. One time, periodic or ongoing research could include archaeological and historic surveys and studies, water and air quality monitoring studies and vegetation and wildlife inventories. Public agencies, educational organizations, professional consultants or volunteers could be authorized by NVRPA to conduct this work
- **SUPPORT INFRASTRUCTURE** – Includes development necessary to support major park operations and activities. Support infrastructure may include visitor centers, specialized recreational facilities, administrative and maintenance facilities, roads, parking areas, utilities, etc.
- **LIMITED SUPPORT INFRASTRUCTURE** – Includes facilities limited in scope and impact but critical to provide minimal support of park operations and activities. Special care will be taken during the planning, design and development of limited support infrastructure in Resource Protection Zones in order to protect existing park resources. Where feasible, the Park Authority shall utilize design and development techniques that avoid or minimize negative impacts to existing resources. Limited support infrastructure may include the following:

- Recreational facilities and trails supporting low impact activities and causing minimal disturbance to the environment and existing park resources.
- Small structures, such as shelters or restroom facilities that do not exceed 800 square feet in size.
- Essential utilities and access routes for park maintenance and emergency vehicles provided there are no other feasible alternatives available.

## **II. BULL RUN MARINA REGIONAL PARK**

The General Management Plan (GMP) for Bull Run Marina Regional Park is intended to guide current and future planning, management and development of this shoreline park and its resources. The GMP focuses on a 100.35-acre parcel of the park, containing core facilities and existing park infrastructure which serve as the primary destination for visitors to this park. A separate GMP will be developed for the adjacent Occoquan Shoreline property to the north and the south of this site.

### **A. PARK DESCRIPTION**

Bull Run Marina Regional Park is a waterfront park located on Bull Run, a tributary of the Potomac River and a source of fresh water for the Occoquan Reservoir in western Fairfax County, Virginia. The park site is accessed from Rte. 612, Old Yates Ford Road, which bisects the park before crossing Bull Run and as it continues into Prince William County.

One of five contiguous NVRPA properties comprising over 4,000 acres on Bull Run, the park contributes to the largest and most extensive biological corridor within Fairfax County. Acquisition of these lands was part of a larger effort by the Northern Regional Park Authority (NVRPA) to preserve riparian lands for watershed protection and to provide public access to recreational water resources.

Areas surrounding and including Bull Run Marina Regional Park are in close proximity to the Manassas National Battlefield Park, where two major Civil War battles, the First and Second Manassas, were fought along Bull Run in 1861 and 1862. Known historic and prehistoric resources have been documented for this site and additional, undocumented resources potentially exist.

Consisting of essentially undeveloped areas of mature forest, with some field and wetland habitats, this park opened in 1966, providing rental boats and amenities for fishing enthusiasts. Existing facilities include: a marina area with boat launch, two large parking lots, a concession building, restroom buildings and a temporary, covered structure, housing shells (crew boats) for local scholastic rowing teams and equipment. NVRPA's 17.5-mile long Bull Run-Occoquan Trail, a major hiking trail following the Bull Run shoreline, can be accessed from the park and followed in either direction

### **B. BACKGROUND**

Lands comprising the present day park were once inhabited by prehistoric Native Americans from the Archaic and Woodland periods. Evidence suggests Paleo-Indians, the oldest known inhabitants of this region, lived near Bull Run Marina about 13,000 years ago.

European settlement of the area began in the mid seventeenth century. Once part of Prince William County, Fairfax County was established in 1742 from the northern part of Prince William County and extended west to the Blue Ridge Mountains.

Much of the land in the region was held by speculators or absentee landlords and farmed by tenant farmers throughout the mid-eighteenth century.

Agriculture, especially tobacco powered the economy as a cash crop dependent on slave labor. Later, significant amounts of wheat were grown in the county and local grist mills along tributaries, including Bull Run, were built to process grain.

The Civil War brought much disruption to Fairfax County, with its proximity to Washington D.C. Farmland, woods and orchards were devastated; crops and animals confiscated or destroyed. Economic conditions were poor by the end of the war.

By 1900 the area had recovered and become relatively affluent; new communities had developed throughout the county. Suburbanization and public and private enterprises grew through the mid-twentieth century. Between 1940 and 1945, population in the county doubled. In 1950, the Northern Virginia Regional Park Authority was created as a multi-jurisdictional agency to carry out a long-range plan for open space.

About this same time, the Alexandria Water Company built a 30-foot high dam near the Town of Occoquan, impounding fresh water from Bull Run and the Occoquan River in a reservoir. Later acquired and expanded by The Fairfax Water Authority, the Occoquan Reservoir today supplies drinking water to more than 1.2 million people in Northern Virginia. Access and use of reservoir waters is carefully controlled by Fairfax Water through its shoreline easement policy, to ensure viability of this drinking water supply.

By the mid-1960's, NVRPA began a 5 year CIP program focused on the acquisition of wooded shoreline properties along the Occoquan Reservoir to protect the drinking water supply and open space. The lands now comprising the park were among these acquisitions, including the 100 acre parcel supporting the marina area, purchased with HUD grant funds in 1965. Bull Run Marina Regional Park opened to the public in 1966, offering fishing, boat rentals, picnic areas and nature trails.

### **C. PARK CLASSIFICATION**

Bull Run Marina Regional Park is considered a Regional Shoreline Park, based upon the purpose and defining criteria for Regional Shoreline Parks as described in the NVRPA *Policy Plan*.

#### **Regional Shoreline Park**

“Preserves riparian lands adjacent to regionally significant water resources while providing public access opportunities for recreational and scenic enjoyment, educational and environmental study.”

“For an area to be considered a Regional Shoreline Park, it must be contiguous to a regionally significant water body or a water resource, having substantial environmental, scenic and recreational impact upon the Chesapeake Bay.”

Bull Run Marina Regional Park is a Regional Shoreline Park because it adjoins Bull Run and the Occoquan Reservoir which flow into the Potomac River and ultimately the Chesapeake Bay. The parks’ undeveloped lands provide a riparian buffer zone protecting the waters of Bull Run and the Occoquan Reservoir and provides public access and opportunities for recreational use and scenic enjoyment of these lands and the waters of Virginia.

(Refer to Appendix B: *NVRPA Policy Plan, Park Classifications* for details.)

#### **D. PARK MISSION**

The mission of Bull Run Marina Regional Park is to preserve significant riparian lands protecting the Occoquan Reservoir while providing recreational and/or water access areas for public use and enjoyment.

#### **E. PARK PURPOSE**

- Protect and restore the natural resources of Bull Run Marina Regional Park for local and regional watershed protection, especially those necessary to maintain water quality in the Occoquan Reservoir.
- Conserve and protect cultural heritage resources related to human occupation within the Bull Run and Occoquan River stream valleys.
- Protect biological diversity in northern Virginia by preserving existing habitats and ecosystems, including wetland habitats and those of rare, threatened or endangered plant and animal species; exemplary natural communities; and other significant natural features.
- Provide educational opportunities through interpretation of the natural and cultural resources to foster awareness of and appreciation for the natural environment.
- Provide low-impact recreational opportunities featuring water-based activities and programs for people of all ages and abilities, to experience in the out-of-doors.

#### **E. PARK SIGNIFICANCE**

- The park provides public and private groups and individuals an opportunity to experience water-based recreational activities, events and programs conducted in an outdoor environment.

- The park's location and extensive tree cover contribute to protection of water quality in Bull Run, the Occoquan Reservoir and the watershed of the Chesapeake Bay, to which they contribute.
- The park's diverse vegetation, including non-tidal wetlands and river shoreline, provides habitat for numerous plant and animal species.
- The park property contributes to a large singular expanse of open space along Bull Run and Occoquan River shoreline, providing a critical link to a larger environmental and genetic corridor.
- This parkland conserves known heritage resources, including those associated with the Civil War, documenting human history and cultural development of northern Virginia and the nation.

## **G. EXISTING CONDITIONS**

### **Vicinity of Bull Run Marina Regional Park**

Bull Run Marina Regional Park is located in southwestern Fairfax County about 2 miles southeast of the historic Town of Clifton and approximately 20 miles from Washington, D.C.

The study site is situated on Bull Run, approximately 15 miles downstream of the 1,400-acre Manassas National Battlefield Park and as much of the surrounding area, has significant association with the Civil War era of American history.

Prior to growth and development of region in the 1980's, outlying areas of northern Virginia such as those surrounding Bull Run Marina remained in agricultural use, as they had for centuries. This area today retains a distinctly rural character with its scattered horse farms and fields, as a result of development restrictions adopted by Fairfax County in 1982.

Lands immediately adjacent to Bull Run Marina Regional Park include contiguous parklands; part of the NVRPA Occoquan shoreline properties. Beyond these parklands, low-density residential developments and a few remaining family farmsteads exist. Across Bull Run, pockets of residential development line Old Yates Ford Road as it continues into Prince William County.

### **The Comprehensive Plan for Fairfax County, Virginia**

*The Fairfax County Comprehensive Plan*, 2003 Edition, amended through 9/25/06. This plan describes the County's long range planning vision for logical and orderly development and growth within the county. The Comprehensive Plan is divided into four Area Plans, each comprised of several Planning Districts; each District is subdivided into several planning sectors.

For each Area Plan and Planning Sector, recommendations for land use planning are made. These recommendations are based upon the predominant use, character and intensity desired for the specific Planning District.

Bull Run Marina Regional Park lies in Area III, the Pohick Planning District, within the Johnny Moore Community Planning Sector. This district is planned primarily for residential use and lies within two major watersheds: the Occoquan River and Pohick Creek watersheds; both drain to the Potomac River before emptying to the Chesapeake Bay.

This Planning Sector includes more than 8,000 acres in the southwestern part of the Pohick Planning District. Fairfax County has committed to maintain the majority of the area as a Low Density Residential Area, to protect the water quality of the Occoquan Reservoir.

Land uses in this sector include large-lot residential, private open space and public parklands. Water quality is the primary objective; accordingly, agricultural and forestall uses are alternatives to residential use of for the area. Road improvements are planned to preserve heritage resources and to maintain rural character. Limited development within this sector indicates a high potential exists for significant undisturbed heritage resources to be found.

Sector Plan recommendations identify a need for additional natural and cultural heritage resource inventories within this area; a continued acquisition and dedication of public lands; and pursuit of dedicated easements to protect significant natural and cultural resources.

### **General Site Conditions**

The study area is located between Old Mill Branch and Wolf Run, at the upstream limit of the Occoquan Reservoir, and is bisected by Rte 612, Old Yates Ford Road. Primarily undeveloped, the site is covered with mature, upland deciduous forest; several stands of Virginia Pine, now in decline, remain on the site from previous land uses.

Facility development is concentrated to two portions of the park, one on each side of Rte 612. The high percentage of undeveloped land existing at Bull Run Marina Regional Park makes a significant contribution to the total undeveloped acreage of the Bull Run-Occoquan stream valley. Conserved stream valley lands provide critical wildlife habitat for numerous species of plants and animals, including carnivores at the top of the food chain, which require large ranges to survive.

### **Park Resources**

Baseline inventories of natural and cultural resources and assessments of existing conditions were prepared for NVRPA in 2005. Development of these documents was based on documented information and verified by field reconnaissance surveys.

In them, existing park resources are identified, current conditions assessed and recommendations made. The inventories provide a basis from which park management plans will evolve, and from which planning decisions for future recreational use and development will be made.

## **NATURAL RESOURCES**

- **Geology, Topography and Soils**

The park lies within the outer piedmont area of Virginia and in close proximity to the Fall Line, a geologic transition zone between the rocky piedmont and flatter coastal plain regions of the east coast, approximately parallel to I-95 through and beyond Virginia.

Elevations range from 350 feet above sea level in the northern part of the site to 125 feet at the waters edge. The terrain becomes increasingly steep towards the southeastern portion of the site, with slopes there ranging from 25% to more than 50%.

The three most prominent soils in the park: Appling, Louisburg and Meadowville, are characterized as deep, well-drained soils having fair to good building potential, but are moderately to highly erodible. Unprotected slopes of greater than 15 per cent are especially susceptible to erosion loss.

- **Water Resources**

Jurisdictions within the Potomac River Watershed, including Fairfax County, are subject to requirements of the Chesapeake Bay Preservation Act of 1988 and the Fairfax County's Chesapeake Bay Preservation Ordinance, both enacted to protect the water quality of the Chesapeake Bay, by designating and mapping Resource Protection Areas (RPA's) and Resource Management Areas (RMA's).

Development and land disturbing activities are generally restricted in RPA's, where vegetated buffer zones are required. Critical to maintaining shoreline stability, they prevent erosion, provide aquatic habitat and preserve water quality.

Two main stream channels run through Bull Run Marina Regional Park; both of these are unnamed tributaries within the Old Mill Branch sub-watershed of the Occoquan basin. Perennial streams are used by the state and county to define the extent of Resource Protection Areas (RPA's).

Both streams were assessed by Fairfax County in 2003 as having poor to fair habitat conditions, due to poor land use practices upstream. This finding was based on erosion of the stream banks, a lack of adequate riparian forest buffers and the deposition of sedimentation in the streambed.

The reduced amount of suitable habitat for invertebrates results in a reduced amount of food available for animals higher in the food chain, and threatens the quality of the Occoquan Reservoir drinking water supply.

- **Plant Communities**

Ecological systems, including plant communities are most strongly influenced by site topography, soil type and previous land use. Natural communities are classified according to the *Classification of Ecological Community Groups* developed by the Virginia Department of Conservation and Recreation (DCR), January 2001.

Three different plant communities, some with multiple cover types, predominate at Bull Run Marina Regional Park. These forests develop in areas of intermediate to dry, relatively infertile habitats throughout the Piedmont and Coastal Plain. Based on field observation, these mature trees typically measured between 16" and 18" DBH; with larger trees ranged from 24-28" DBH scattered throughout. One specimen tree of approx. 30" was seen in the northern section of the park.

- Beech/Oak/Hemlock/Pine Forest: This site is dominated by mixed hardwood forest species, integrated extensively with Eastern Hemlock/ and Pine Forest.
- Mesic Mixed Hardwood Forest: Mixed hardwoods comprised of American Beech, oak species and tulip poplar occupy south-facing slopes and uplands on site.
- Hemlock/Pine Forest: Declining stands of Virginia Pine, found on the south side of Rte 612 are indicative of early succession forest of old fields or other land clearings.

Forested wetlands areas exist at several locations downstream of the Rte 612 bridge, along the shoreline. Predominantly vegetated with Black Willow, American Sycamore and species of sedges and rushes, impacts to these areas from construction or other earth disturbing activities would require coordination with local, state and Federal authorities.

- **Understory Species**

An important criterion in the classification of natural communities, these plants are critical to differentiating between forest types and important as forage and habitat for wildlife. Understory species for these mixed hardwood forests include American holly, Flowering dogwood and American hornbeam; with a sparse herbaceous layer at ground level.

- **Wildflowers**

Spring wildflowers were not observed within the park during field reconnaissance (August 2005) Native wildflowers, including Virginia bluebells, would typically appear in early to mid-spring. There is a high potential for multiple species to be identified within the course of a more comprehensive natural heritage resources survey.

- **Exotic and Invasive Plant Species**

Often out-competing native plant species, invasive species displace native plant species, may reduce habit for native wildlife thereby altering ecological systems.

Several types of exotic invasive species including Silk Tree Mimosa, Multiflora Rose and Japanese Kudzu vine were observed at the park. Though not extensive in number or spread, they could affect plant community structure if left uncontrolled.

- **Wildlife**

Various habitat types provided by the diverse plant and aquatic communities found within this riparian greenway provide for a wide variety of wildlife species likely to be found in the park. Approximate numbers likely to occur are based upon species range, habitat preferences and known occurrences at nearby locations.

Observations of wildlife were noted and recorded during the limited field visits for natural resources. Beaver, minnows, frogs, blue herons and osprey and several species of Passerine birds were observed or heard during site reconnaissance. Habitats within the park are suitable for a variety of additional wildlife species including mammals, birds and amphibians.

- **Rare, Threatened and Endangered Species**

The Virginia Department of Conservation and Recreation (DCR) defines Natural Heritage Resources as: “the habitat of rare, threatened, or endangered plant and animal species; unique or exemplary natural communities; and significant geologic formations.”

No state or federally listed threatened or endangered species were observed or have been documented within the Park. Further investigation for these species should be undertaken in the event of potential construction activity.

## **CULTURAL RESOURCES**

A preliminary resources assessment was undertaken for the study site portion of Bull Run Marina Regional Park. The purpose of the assessment was to gather information concerning known cultural resources on the property and to examine current site conditions to define those areas within the site with the greatest potential for previously unidentified cultural resources.

Documentary research, review of previous archaeological investigations, followed by a pedestrian survey of the site was conducted to verify existing resources within the site and identify areas with a high potential for intact archaeological resources.

- **Previous Research**

No systematic archaeological investigation has been undertaken at Bull Run Marina Regional Park or the immediate vicinity in the past. However, 24 individual sites in the vicinity have been identified and recorded by Fairfax County archaeologists and volunteers. Seven archaeological sites in the park have been recorded; four prehistoric sites and three historic sites. Two historic sites are cemeteries; the third contains the foundations of a springhouse, possibly dating to the nineteenth century.

Within the park, potential for prehistoric resources is limited due to steep topography although some possibility exists for sites on ridges and terraces flanking Bull Run. Both sides of Old Yates Ford Road have a high potential for both Civil War period sites and a nineteenth century farmstead.

- **Conclusion**

Bull Run Marina Regional Park has a long and varied past, documented by artifacts found near and within the park study sites. Additional prehistoric and historic sites are presumed to exist within the park site and remain undocumented; several documented sites are threatened by erosion and neglect; Civil War sites in particular are vulnerable to relic hunters.

Subsurface testing throughout the study site area indicated that areas of wooded parklands include soils that are relatively intact and therefore have a higher potential for undisturbed cultural resources. Further archaeological testing is recommended to document additional resources.

## **RECREATIONAL RESOURCES**

Recreational facilities and park infrastructure have been developed on both sides of Rte. 612, Old Yates Ford Road. The majority of the park's buildings and infrastructure were constructed in the mid 1960's. One of the first Regional Parks accessing the Occoquan Reservoir, Bull Run Marina offered fishing, boat rentals, picnic areas and nature trails for public recreational use. Various trails, including the 17.5 mile Bull Run-Occoquan Trail ("Blue Trail") for hikers and equestrians, can be accessed from either side of the park.

Marina facilities located to the north of Rte. 612 comprise the "core" area for recreational activity; primarily fishing and paddling. Scholastic rowing teams also use the marina as a practice facility and have installed a temporary boat storage building and two floating docks for this purpose; the former concession building is used for equipment storage. This area of the park has a gated entry requiring users to obtain seasonal pass keys.

South of Rte 612, the park is minimally developed and provides access year round. Currently, Fairfax County uses one section of the large parking lot for a mulch distribution site. The brick restroom building is currently closed to the public.

## **H. SITE CONSTRAINTS AND OPPORTUNITIES**

### **Constraints**

For the purposes of this plan, site constraints are defined as areas within the park where the condition of a certain resource or physical site conditions presents a significant restriction for development.

Steep slopes, erosive soils and forested wetlands, and Fairfax County's designated EQC and Resource Protection Areas (RPA's) limit development opportunities for approximately 60 percent of the study site. Sensitive resources, including natural communities and known archaeological sites exist, may further reduce potential

Constraints to site development that could not be mapped relate to the presence of unidentified threatened or endangered species and archaeological sites. A high probability for these resources exists within the park property, requiring site-specific investigations to ensure avoidance or minimization of any adverse impacts on those resources.

Existing site development or current uses such as existing buildings and infrastructure, utility easements and locations and sensitive resource areas may preclude use of certain areas for other purposes.

Outside the park, other constraints include those that are not under the control of NVRPA, including possible expansion of roads, lack of available public utilities or any adverse effects to the park resulting from decision making by other authorities outside of NVRPA.

### **Opportunities**

Physical and environmental conditions indicate a preference to locate new facility and infrastructure to areas adjacent to the existing marina facilities and on the south side of the park, to the bluff areas where past ground disturbance has already taken place. Overall, habitats within the park are generally of a consistent high quality and should be preserved whenever possible.

Expanded recreational use of areas within the park could include expansion of water-based activity and programming, featuring low impact uses such as paddling, hiking, birding, and primitive camping and education and interpretation of natural and cultural resources of the park, to restore and enhance existing resources.

The *Natural and Cultural Resource Inventories and Existing Conditions Assessment for Bull Run Marina Regional Park (Appendix C)*, identifies areas within the park that present possible constraints and opportunities for future development of the site.

## **I. PARK RESOURCE MANAGEMENT ZONES**

Resource management zones for Bull Run Marina Regional Park conform to the resource management and use guidelines for Regional Shoreline Parks as found in the NVRPA *Policy Plan* and *Park Classification System*.

The purpose and lands uses within this management zone reflect a need to protect and restore regional water resources including marshes and wetlands; and important natural areas for wildlife habitat and scenic values, and significant archaeological sites.

Identification and delineation of zone boundaries within Bull Run Marina Regional Park was based upon physical site conditions, existing cultural and environmental resources, current and past land use and potential for future uses within the park.

Due to physical site constraints, of existing park infrastructure, existing heritage resources, including high quality upland hardwood forest habitat and a high

probability for cultural resources, the majority of the park is within a Natural Resource Protection Zone.

The remainder of the site has been designated a Recreation Zone, to allow for continued operation of existing park facilities and possible expansion for public uses, including access to Bull Run and the Occoquan Reservoir .

Cultural resources may exist within any of the park's resource management zones. Therefore, cultural resource surveys will be conducted to identify potential sites or features prior to any potential site development or land-disturbing activity.

### **Natural Resource Protection Zone**

Much of the area designated as the Natural Resource Protection Zone provides opportunities for resource enhancement, protection of the watershed, significant wildlife and plant species and preservation of prehistoric and historic archaeological sites and cultural resources.

The primary purpose of this zone is to protect existing resources and to identify areas that warrant special resource management. This management zone may include areas identified as outstanding natural or cultural resources or areas considered undevelopable because of site constraints. Human impact to the environment shall be minimal. Vehicular traffic, structures and facilities will be strictly regulated.

Potential uses permitted:

- Low impact recreation
- Interpretation and education
- Resource management
- Research
- Limited support infrastructure

### **Recreation Zone**

The Recreation Zone includes the “core” of developed recreational facilities and park infrastructure, including roads, parking areas and utilities. Expansion of the existing recreation zone may be possible in areas adjacent to the core facilities area, where existing infrastructure is already in place and physical site constraints and potential for sensitive resources is low.

The primary purpose of the Recreation Zone within Bull Run Marina Regional Park is to provide park visitors with a variety of recreational and educational experiences not generally available at local parks or recreational agencies. This zone may include existing or future recreational facilities, park infrastructure and visitor services. Research and analysis of existing resources will be completed prior to any site development or other land-disturbing activity.

Potential uses permitted:

- Low impact recreation
- High impact recreation
- Interpretation and education

- Resource management
- Research
- Support infrastructure

(See *Bull Run Marina Regional Park Resource Management Zones Map*, following this section, for details.)

## **J. FUTURE PLANS AND STUDIES**

### **Planning Projects**

The General Management Plan is the foundation of the park planning process and provides the basic data and guidelines for all future actions. Plans and projects should be completed utilizing current data and implemented as funding, staffing and priorities allow. Subsequent plans to the GMP could include:

- Park Resource Management Plans
- Park Operations and Management Plan
- Interpretive Plans
- General Management Plan revisions
- Development Plans

### **Research Projects and Studies**

Future planning and management of Bull Run Marina Regional Park could benefit from additional studies and research into the following areas as funding and staffing becomes available:

- Detailed natural resource inventories
- Detailed archaeological surveys
- Visitor use surveys (periodic)
- Volunteer program development

## **K. LAND ACQUISITION**

NVRPA's strategic plan, currently under development, will outline an approach to achieve a stated Policy goal to protect regionally significant resources with an objective to continue to acquire and/or otherwise protect strategic lands adjacent to the region's watersheds, lands adjacent to current parks and other properties of regional significance as they become available. Acquisition of lands may proceed by purchase, the dedication process, or other means.

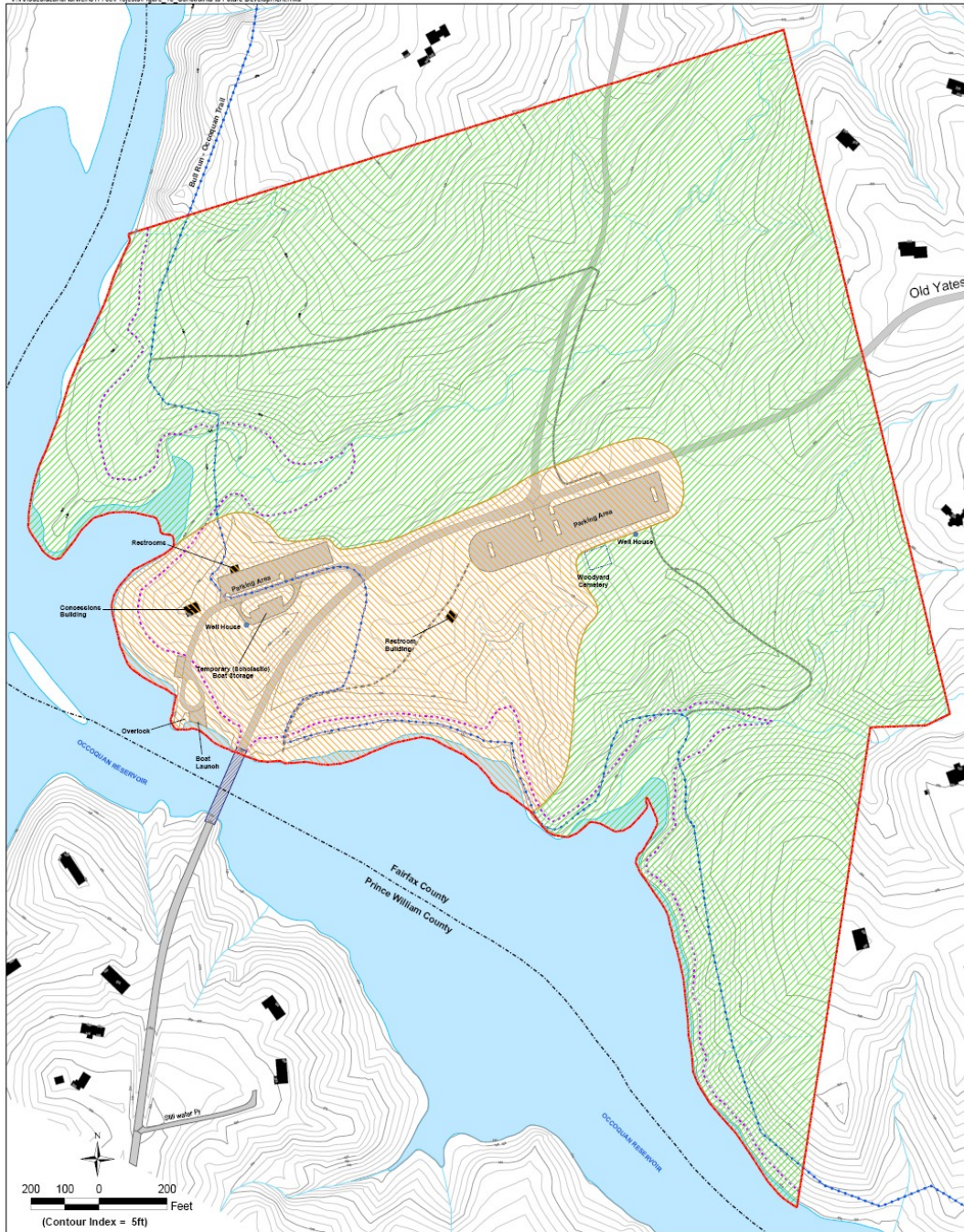
As financial and staffing resources and other special opportunities become available, NVRPA will determine potential acquisition sites to provide areas for resource protection, recreational use and water access, and as part of a regional greenway system.

## **L. CAPITAL IMPROVEMENT PROGRAM (CIP)**

Design and construction projects are implemented through NVRPA's Capital Improvement Program (CIP) in order to provide sufficient Regional Park lands and facilities to meet the growing needs of Northern Virginians.

Public hearings are held throughout the six member jurisdictions of NVRPA, to obtain citizen comment prior to adoption of the CIP. These comments are an important factor in considering future planning and development at all NVRPA parks.

Typically, the CIP involves a five-year plan for development projects throughout the Regional Park system. Additional elements of the CIP include land acquisition, development of interpretive and educational displays and providing park features to meet the needs of the disabled. All development plans should be implemented under the guidelines presented in the General Management Plan. Detailed resource surveys should be conducted to identify potential heritage resources and rare, threatened or endangered species, prior to potential site development or land disturbing activity.



- Legend**
- Site Boundary
  - County Boundary
  - Buildings
  - ▨ Bridge/Overpass
  - ▨ Paved Area
  - Surface Water
  - Dam
  - Perennial Stream
  - Intermittent Stream
  - Well Houses
  - Cemetery
  - Bull Run - Occoquan Trail
  - Pedestrian Trail
  - Equestrian Trail
  - Approximate Fairfax Water Easement (Defined by 133ft Contour)
  - ▨ Natural Resource Protection Zone
  - ▨ Recreation Zone

**Management Zones**  
**Bull Run Marina Regional Park**  
**Fairfax County, Virginia**

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