



Welcome to Potomac Overlook Regional Park Planning Website

The Northern Virginia Regional Park Authority has adopted a General Management Plan (GMP) for this 70-acre Regional Park and Nature Center, to help guide future planning, development and resource management of the park.



The GMP for Potomac Overlook Regional Park includes the following:

- Identification of park mission, purpose and significance statements
- An inventory and description of the existing natural resources
- A history, inventory and description of the existing cultural resources
- A description of current Park programming
- An inventory and description of the existing public recreation facilities
- Identification of various park resource management zones and a description of the activities appropriate for each zone.
- Opportunities for future plans and projects

Questions regarding the Potomac Overlook Regional Park Planning Process or this website should be directed to the NVRPA Planning Department at 703-352-5900 or Plandev@nvrpa.org.

General Management Plan for POTOMAC OVERLOOK REGIONAL PARK Arlington County, Virginia



Prepared for
THE NORTHERN VIRGINIA REGIONAL PARK AUTHORITY

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ACKNOWLEDGMENTS

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EXECUTIVE SUMMARY

Development of the General Management Plan for Potomac Overlook Regional Park should be viewed as the first part of an integrated plan to manage the park. It is an active and ongoing process for making choices about how to effectively plan and manage the resources we steward, how to achieve goals and objectives identified in the Policy Plan and how to uphold the mission of NVRPA. The General Management Plan (GMP) will serve as an important problem-solving tool, assisting in park planning, development, operations and management.

This plan provides a management framework for park resources, designating resource management areas or "zones" within the park, each having appropriate recreational uses and development designated, in order to sustain park resources. The delineation of management

zones is based upon an evaluation of many factors, including the established purpose of this park, the nature and significance of the park's natural and cultural resources, the ability of each site to support identified uses, the desired visitor experience and park management objectives.

The approved GMP is a comprehensive plan that will vary in detail with the size and complexity of a given park, which will guide subsequent planning and project implementation. Detailed plans and studies detail specific management practices for each of the respective resource management zones, consistent with the approved GMP. All future plans and projects will be consistent with the direction established in the GMP. The GMP components will be reviewed periodically and revised or amended as necessary to reflect new issues or changes in management objectives.

Throughout the park planning process, opportunities for public participation and comment will be provided. These may include public meetings and workshops, informal work sessions on specific issues and public review and comment on draft documents. Involvement of the public will be initiated at the earliest stages of the planning process, before planning decisions have been made.

TABLE OF CONTENTS

[Introduction](#)

[Policy Plan Diagram](#)

[PART I: THE PLANNING PROCESS](#)

- [A. The General Management Plan](#)
- [B. Purpose of the GMP](#)
- [C. Goals and Objectives of the GMP](#)
- [D. NVRPA Park Classification System](#)
- [E. Management Framework](#)
- [F. Glossary of Potential Uses](#)

[PART II: POTOMAC OVERLOOK REGIONAL PARK GMP](#)

- [A. Park Description](#)
- [B. Background](#)
- [C. Park Classification](#)
- [D. Park Mission](#)
- [E. Park Purpose](#)
- [F. Park Significance](#)
- [G. Existing Conditions](#)
 - [Vicinity of POTOMAC OVERLOOK Regional Park](#)
 - [The Comprehensive Plan for Arlington County, VA](#)
 - [General Site Conditions](#)
 - [Park Resources](#)
- [H. Site Constraints and Opportunities](#)
- [I. Park Resource Management Zones](#)
- [J. Future Plans and Studies](#)
- [K. Land Acquisition](#)

Appendices

[Appendix A: NVRPA Policy Plan: Goals and Objectives](#)

[Appendix B: NVRPA Policy Plan: Park Classification System](#)

[Appendix C: A Field Guide to Potomac Overlook Regional Park](#)

[Appendix D: Potomac Overlook Regional Park 2002 Natural Resources Inventory](#)

[Appendix E: Cultural Resources Assessment of Potomac Overlook Regional Park](#)

[Appendix F: Potomac Overlook Regional Park Resource Inventory Maps](#)

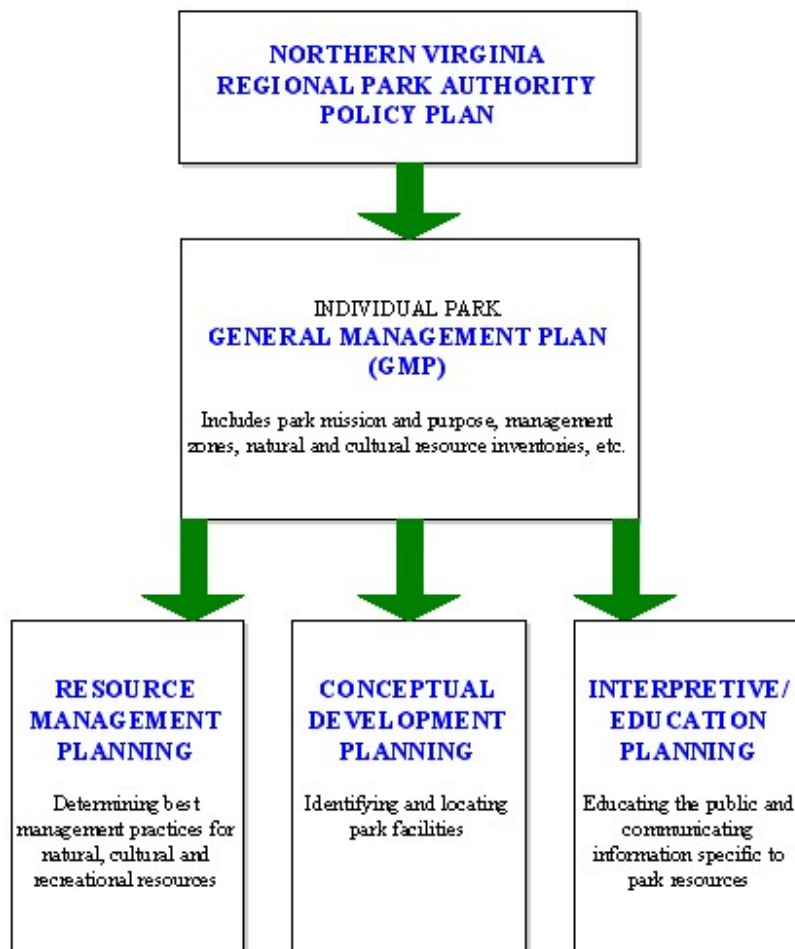
INTRODUCTION

Northern Virginia Regional Park Authority's Policy Plan establishes policies and procedures to guide the Authority in the 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 the 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

A. THE GENERAL MANAGEMENT PLAN

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 nineteen 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.

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 undevelopable 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. POTOMAC OVERLOOK REGIONAL PARK DRAFT GMP

The General Management Plan (GMP) for Potomac Overlook Regional Park -is intended to help guide current and future planning, management and development of this special use park and its resources.

A. PARK DESCRIPTION

Potomac Overlook Regional Park, situated in north Arlington, Virginia, comprises an elongated, roughly triangular site of approximately 67 acres. The site remains predominantly undeveloped as woodland; several minor tributaries of the Potomac River run through the park, draining to the east.

Approximately 25 acres of Potomac Overlook Regional Park lie within the George Washington Memorial Parkway (GW Parkway) Historic District. The historic district was established to protect the landscape values for which the GW Parkway has been recognized, as it parallels the Potomac River for approximately 37 miles. The parkway traverses three political jurisdictions: from the Mount Vernon Estate and Gardens south of Alexandria through Arlington and into northern Fairfax County.

The park is bounded by the GW Parkway to the east, Arlington County's Donaldson Run Park to the north and west and private and residential development to the south. Marcey Park, an Arlington County facility; and the Donaldson Run Recreation Association swim club form in-holdings within or near the southern end of the park.

Together with Donaldson Run Park and the National Park Service's extensive landholdings on the Potomac River shoreline, Potomac Overlook Regional Park contributes to an expansive greenway. The greenway functions as a critical environmental and wildlife habitat, protects the Potomac River watershed and regional drinking water resources while providing recreational open space within the highly developed metropolitan Washington, D.C., area.

B. BACKGROUND

Robert H. Donaldson purchased the land in 1842 from John Mason, son of George Mason of Gunston Hall. Donaldson was the last owner to hold the property as part of a single, 98-acre parcel, prior to its subdivision. The present-day park site was acquired by NVRPA in a series of separate transactions between 1966 and 1973, resulting in the re-assembly of the parcels under a single owner.

Donaldson operated a market farming enterprise, taking his produce of grain, vegetables and fruit to sell across the river in Georgetown. His operation was interrupted several times during the Civil War by occupation of his property by Union Troops and later, construction of a military side road through the property. Upon Robert Donaldson's death in 1887, the property was divided among his four heirs. Several members of the Donaldson family continued to reside on the property into the 20th century.

In 1948, a land developer had purchased 35 acres to develop a residential community. Unsuccessful in attempting to sell these sites, the developer offered the acreage to Arlington County and a second land developer purchased it in 1956. The acreage was never developed and was eventually purchased by NVRPA in 1966. Adjacent parcels were acquired throughout the 1960's and early 1970's to comprise the present day park site of 67 acres.

Potomac Overlook Regional Park was planned with assistance from the National Audubon Society, for creation of an urban nature sanctuary within Arlington County. The planning intent for the park was three fold: (1) to preserve the land in its natural state to promote the health of the environment and safeguard the diversity of species; (2) to educate the public on natural and cultural history, stressing the interrelatedness of all living organisms with the environment; and (3) to provide a natural setting for recreation and exercise.

C. PARK CLASSIFICATION

The park classification system was established to work in conjunction with the individual park management plans: to plan, develop, operate and maintain each of the Authority's parks. The classification system contains six categories, each with its own defining criteria. These criteria identify the purpose of each park and provide resource management and use policies and planning and development guidelines. While the system is comprehensive, it is not mutually exclusive and a park may qualify for more than one classification. Potomac Overlook Regional Park is considered a Regional Recreational/Special Multi-Use Park, based upon the purpose and defining criteria for this park classification as described in the NVRPA *Policy Plan*:

Regional Recreational/Special Multi-Use Park

"Regional Recreational/Special Multi-Use Parks contain recreational and other public facilities or opportunities, which, because of their specialized nature, cost or demand, are not generally available within local parks or offered by local park and recreation agencies. For an area to be considered a Regional Recreational/Special Multi-Use Park, it must be an area or facility that has an attraction capability that is region-wide; or supplements or complements local park and recreation facilities."

Potomac Overlook Regional Park is recognized as a Regional Recreational/Special Multi-Use Park because it offers specialized educational and recreational opportunities unique to an urban nature sanctuary, to meet the needs and interests of the public in a metropolitan area. The park's 67- acre habitat of mature, upland forest is unusual in the Piedmont and Coastal Plain physiographic regions and is becoming increasingly uncommon within the region as development proceeds.

D. PARK MISSION STATEMENT

The mission of Potomac Overlook Regional Park is to provide a protected woodland sanctuary, in order to preserve environmental quality and species diversity; to provide environmental and cultural education, stressing the relationship between all living organisms and to provide a natural setting in which to enjoy low impact recreational activities and physical exercise.

E. PARK PURPOSE

- Preserving undeveloped woodlands for protection of the environment, existing ecosystems and biological diversity.
- Providing a variety of educational opportunities through programs and activities interpreting the relationship of human and natural history of the region.
- Encouraging low impact recreational uses and physical activities in a natural setting that contribute to environmental awareness and stewardship of the parklands.
- Sponsoring cultural programs and events that encourage community involvement and participation.
- Conserving and protecting the natural environment relative to the water quality of the Potomac River watershed and the Chesapeake Bay.
- Protecting habitats of rare, threatened or endangered plant and animal species; exemplary natural communities and other significant natural features.
- Protecting and interpreting significant cultural resources of the citizens of northern Virginia.
- Contributing to environmental education and protection for all NVRPA properties.

F. PARK SIGNIFICANCE

- The park property contributes to a large singular expanse of open space adjacent to the Potomac River shoreline, providing a critical link in a larger environmental and genetic corridor.
- The park provides public and private groups and individuals an opportunity to develop an understanding and appreciation of the interrelationship of natural and human activities and events through the history of the land.
- The park's diverse vegetation provides habitat for numerous plant and wildlife species.

- The park's location and extensive tree cover contribute to protection of water quality of the Potomac River watershed and the Chesapeake Bay.
- Known cultural resources within the park, particularly those associated with prehistoric Native American occupation, demonstrate its significance throughout human history and cultural development of northern Virginia.

G. EXISTING CONDITIONS

Vicinity of Potomac Overlook Regional Park

Potomac Overlook Regional Park is located within an area known as the Potomac Palisades, adjacent to the Potomac River, to the southwest of Washington, D.C. Adjacent parklands belonging to Arlington County and the National Park Service connect Potomac Overlook Regional Park to the Potomac River shoreline and the George Washington Memorial Parkway.

The area immediately surrounding Potomac Overlook Regional Park is comprised primarily of older, established residential neighborhoods of north Arlington, Virginia. Within seven miles of the District of Columbia, the park is in close proximity to several elementary and middle schools, a high school and university, as well as churches and health care centers. Nearby Arlington County parks and private recreation associations and country clubs offer opportunities for recreational pursuits and access to open space for the local community and visitors to the nation's capital.

Small neighborhood shopping centers and businesses are interspersed throughout the residential neighborhoods. Public transportation and multiple bicycle routes offer alternative transportation options.

The Comprehensive Plan for Arlington County, Virginia

Eight separate elements comprise the *Arlington County Comprehensive Plan*. The Plan is reviewed and amended on a continuing basis as required by state statute. The *General Land Use Plan*, one of eight elements of the *General Land Use Plan*, is the primary policy guide for future development within the County. The Plan establishes the overall character, extent and location of various land uses and serves as a guide to communicate the policy of the County Board.

Detailed land use plans further refine uses within designated areas of the county for community improvement through redevelopment, revitalization or conservation. *Sector Plans, Neighborhood Conservation Plans and Special District Plans* are examples of plans requiring specialized, comprehensive study.

Potomac Overlook Regional Park is located within the Donaldson Run neighborhood. The *Donaldson Run Neighborhood Conservation Plan*, developed in October 2002, is intended to guide future development of the neighborhood, to make specific recommendations for its improvement and to protect the features that make it a desirable place to live.

The goals of the *Donaldson Run Neighborhood Conservation Plan* are to preserve the character of the neighborhood as a quiet, wooded neighborhood; to preserve and improve the parks and existing green spaces, improving the safety

and beauty of the neighborhood by solving problems associated with high-speed traffic.

Because it is not a county owned park, no specific recommendations were made for Potomac Overlook Regional Park, however the neighborhood plan states: "We who now live in the most urbanized county in Virginia are fortunate that this green, natural area, with its diverse wildlife and native trees was saved."

Potomac Overlook Regional Park adjoins two County parks: Marcey Park and Donaldson Run Park. Marcey Park is a three-acre park with tennis and basketball courts. It is adjacent to Marcey Road and is surrounded on three sides by Potomac Overlook Regional Park.

Donaldson Run Park, a 29-acre stream valley park, extends from Military Road and follows and includes Donaldson Run, until it meets federal parkland, where it ultimately joins the Potomac River. Donaldson Run Park adjoins the western boundary of Potomac Overlook Regional Park. A foot trail crosses and follows the streambed down to the riverfront. It connects with several other hiking trails in Potomac Overlook Regional Park and to the Potomac Heritage Trail at the Potomac riverfront and is primarily maintained by staff and volunteers at Potomac Overlook Regional Park.

General Site Conditions

Situated on an upland ridge, the park is heavily forested with mature, high quality deciduous trees. Several minor tributaries of the Potomac River drain the property to the east. High, narrow ridges and steep valleys have resulted from the stream drainage action over time. Park infrastructure and facilities, including the entrance road and parking area, comfort station, nature center and manager's residence are located along the ridgeline. The demonstration gardens, raptor center and amphitheatre provide areas for organized, low impact activity. The remainder of the park site remains undisturbed, accessed by natural surface paths and hiking trails.

The high percentage of undeveloped woodland existing at Potomac Overlook Regional Park makes a significant contribution to watershed protection and habitat conservation within the larger area of the Potomac River gorge and promotes the naturalistic setting of the scenic George Washington Memorial Parkway.

Park Resources

Potomac Overlook Regional Park is rich in both natural and cultural resources. Park resources have been identified and documented over the years by park staff, and others, much of these resources have been recorded in the NVRPA park publication, *A Field Guide to Potomac Overlook Regional Park*. Several other reports and research studies have been undertaken over the years that include information about the park's resources. Most recently, baseline inventories of natural and cultural resources and existing conditions assessments were prepared for NVRPA in 2002, based upon available existing resource information and field reconnaissance surveys.

The *Field Guide to Potomac Overlook Regional Park* and other reports, document existing park resources and their conditions. This information provides

a basis from which management plans for park resources will evolve and from which planning decisions for future recreational use and facility development will be made.

NATURAL RESOURCES

- **Topography, Geology and Soils**

Long narrow ridge tops, dissected by steeply sloping drainage swales and intermittent stream valleys, characterize the topography of Potomac Overlook Regional Park. The eastern boundary of the park overlooks the Potomac River; atop bluffs of metamorphic rock that form the palisades, which rise abruptly, 240 feet above the level of the river.

The underlying geology of the site is primarily metamorphic Sykesville Formation from the Lower Cambrian Age, occurring about 530 million years ago. Ancient river deposits of sand, cobbles and clay, approximately two to five million years old, underlie small areas of the park.

The soils of Potomac Overlook Regional Park are composed primarily of Glenelg soils. Bedrock forming these soils is found 20 to 40 inches below the surface. Deep and well drained, this soil type exhibits good engineering characteristics. The majority of soils within the park have a high to severe potential for erosion without adequate vegetative or other protection. Especially susceptible to erosion losses are slopes with a gradient of greater than 15 percent.

- **Wetlands**

The location of the park, on a high ridge top, makes it unlikely that large areas of wetlands would be found within its boundaries. Wetlands are primarily found along the bed and banks of the nine intermittent and two perennial stream channels and are qualified as jurisdictional wetlands of the United States. These small wetlands have an important ecological function of filtering and purifying surface water and provide critical habitat for a variety of macro invertebrates.

- **Water Resources**

Potomac Overlook Regional Park lies within the watershed of the Potomac River, the second largest river contributing to the Chesapeake Bay. The position of the park atop a ridge on the Potomac Palisades places it at the highest elevation in the local watershed. The streams that drain the park are first order with very steep channels and deeply cut banks.

Ten major drainage swales exist within the park. Five drain westward into Donaldson Run, three drain directly into the Potomac River after passing under the GW Parkway and two drain to the south into Marcey Creek.

Three Donaldson Run tributaries, two Potomac River tributaries, plus Marcey Creek, collect enough drainage area before leaving the park to create streambed landforms. The watersheds for all streams within the park remain relatively undisturbed as a result of the extensive existing forest cover on site that provides the conditions necessary to maintain very high water quality and stream habitat.

Outside the park boundaries, impacts of urban storm water runoff, erosion and sedimentation have severely degraded Donaldson Run and Marcey Creek, resulting in poor water quality and low habitat value.

Following the 1983 Chesapeake Bay Agreement between the states of Virginia, Maryland and Pennsylvania, the District of Columbia and the U.S. Environmental Protection Agency, the Virginia General Assembly enacted the Chesapeake Preservation Act in 1988 to implement the agreement. The Virginia Chesapeake Bay Preservation Act requires tidewater local governments, including Arlington County, to designate and protect Chesapeake Bay Preservation Areas to protect water quality in the Chesapeake Bay. These include Resource Protection Areas (RPA's) defined as extremely environmentally sensitive, such as streams, rivers, lakes and wetlands and the 100-foot tree buffer zone surrounding them. Resource Management Areas (RMA's) include all other areas, which can be susceptible to degradation of water quality if improper development practices are used.

Arlington County adopted its original Chesapeake Bay Preservation Ordinance in 1992. The county ordinance designated RPA's for all perennial streams, based on U.S. Geological Survey topographical mapping. The remainder of the land area within the County is designated as RMA's because runoff from the entire county drains to the Potomac River. Revisions to state regulations became effective March 1, 2002. Amendments to the current Arlington County ordinance were adopted February 8, 2003. The amended ordinance significantly expands the extent of RPA's to include all natural streams and open channels, with the minimum 100-foot buffer extended to include all adjacent slopes greater than or equal to 25 percent and adjacent slope greater than or equal to 15 percent along the Potomac Palisades between Chain Bridge Road and the Fairfax/Arlington county line. The amended ordinance places Potomac Overlook Regional Park entirely within an RPA.

- **Plant Communities**

Five different plant communities, some with multiple forest cover types, have been identified at Potomac Overlook Regional Park. The natural plant community types are based upon the Virginia Department of Conservation and Recreation's (DCR's) classification system and delineated by field observation. The definitions for each community type listed below do not necessarily reflect the presence of all species within Potomac Overlook Regional Park.

- Coastal Plain/ Piedmont Bottomland Forests: A diverse group of temporarily and seasonally flooded deciduous forests, these communities encompass most bottomland sites of the Coastal Plain. Characteristic tree species vary with habitat conditions

however; combinations of green ash, red maple, sweetgum, swamp tupelo, water hickory, willow oak and overcup oak usually dominate seasonally flooded swamps.

Alluvial landforms and stream bottoms often support additional species including tulip poplar. Small tree, shrub and herbaceous plant layer cover varies greatly, depending on geography and site conditions.

This community type comprises approximately two percent of the forest cover at Potomac Overlook Regional Park and is found only in the southwestern corner of the site, along an intermittent, unnamed tributary of Donaldson Run. This area is dominated by red maple and wetland herbaceous species.

- Piedmont/Low Mountain Alluvial Forests: These temporarily flooded forests are typical of smaller stream floodplains where distinct alluvial landforms such as levees, terraces and back swamps occur, throughout the Piedmont and mountain-region valleys in Virginia. Tree species would include sycamore, boxelder, American elm, green ash, river birch red maple, sweetgum, black walnut, tulip poplar and black willow. Shrubs include spicebush, blackhaw viburnum, American hornbeam, American hazelnut and deciduous holly. Herbaceous plant layer composition varies greatly with site conditions and geography.

These communities occupy smaller, more topographically heterogeneous floodplains and have a lower diversity of vegetation. Communities of this group are not well documented in Virginia and are mostly in fair to poor condition because of extensive past tree clearing activity, livestock grazing, catastrophic flooding and invasive exotic weeds. This community type comprises about seven percent of the tree cover found at the park, found in the steep-sided valleys that drain the central ridge flowing eastward to the Potomac River and westward to Donaldson Run.

- Basic Oak-Hickory Forests: These mixed hardwood forests of dry upland habitats are found over basic (non-acidic) rocks. Scattered throughout the Virginia Piedmont and low elevation slopes of the northern Blue Ridge Mountains, their distribution elsewhere in the state is uncertain. The largest stands of this community type occur in the Piedmont Triassic basins. Species composition varies regionally but is generally characterized by mixtures of white oak, northern red oak, black oak, chestnut oak, post oak, pignut hickory, red hickory, shagbark hickory, mockernut hickory and white ash. Eastern redbud, eastern hop hornbeam and flowering dogwood are common small trees of the understory. Herbaceous layers are frequently species rich, existing in intermediate to dry site conditions.

Distribution of this forest type is naturally restricted by limited available habitat, having been reduced considerably by a long history of agricultural use, planting of timber pine stands and

continuing urban development. Most if not all community types in this group can be considered uncommon or rare in Virginia.

Basic oak-hickory forests occur only on a ridge top location in the southeastern portion of the park, comprising a total of three percent of the park's forest cover.

- Mesic Mixed Hardwood Forests: These forest communities are composed of mixed hardwoods requiring moist to dry, infertile habitats found locally at low elevations in the mountains. Forests in this group occupy uplands, ravines, lower slopes and well-drained flats on acidic, nutrient-poor soils. Typical tree canopies contain a mix of American beech, various oaks, tulip poplar and hickories. American hornbeam flowering dogwood and American holly are prominent understory species. These communities lack the lush herbaceous layers of the mixed hardwood forests. Repeated logging of these forests east of the Blue Ridge Mountains has reduced the quality and extent of the communities.

Mesic mixed forest is the dominant forest community type at Potomac Overlook Regional Park, comprising almost 83percent of the park's forest cover. This community covers the central ridge and higher elevations of the surrounding stream valleys, which are heavily dominated by tulip poplar.

- Tree of Heaven: Although not a formally defined natural community as described by DCR nomenclature, it is a distinctive feature of Potomac Overlook Regional Park. An invasive exotic species, a nearly pure stand of this species exists in the southwestern section of the site that was formerly used as a dump prior to establishment of the park. This species grows in areas of disturbed soils, at a rapid rate, outcompeting native species and producing a toxin that inhibits growth of most other species. At this time, there is no known control for this plant.

- **Significant Trees**

Defined as trees with a circumference greater than 30 inches in diameter, a number and variety of trees, significant in size, exist within the park.

- **Understory Species**

An important criterion in the classification of natural communities, these small trees, shrubs and plants are critical to differentiating forest types and provide critical forage and habitat for wildlife.

- **Wildflowers**

Many species of wildflowers have been observed within the park. A comprehensive list of wildflowers and non-flowering plants including ferns and fungi has been compiled and their presence confirmed during field surveys by park staff and others.

- **Exotic and Invasive Plant Species**

An exotic species is defined as any species not native to a geographic area. Eleven exotic species including trees, vines, herbs and grasses were identified within Potomac Overlook Regional Park as potentially invasive.

An invasive species is one that spreads rapidly and occurs in greater abundance than may be desirable. Often outcompeting native plant species found in its vicinity, invasive species displace native plant species, may reduce wildlife habitat and alter ecological ecosystems.

The most notable within Potomac Overlook Regional Park is the stand of *Ailanthus altissima* or Tree of Heaven located in the southwest section of the park near the Marcey Road tennis courts. This tree grows extremely rapidly in soils that have been disturbed. The bark and leaves of the tree also produce a toxin that inhibits growth of other species. Several other common exotic invasive species exist in scattered locations within the park, including vines, shrubs, grasses and herbs.

- **Wildlife**

Hardwood forests, in various stages of succession, dominate Potomac Overlook Regional Park. These forests, along with small fields and streams within the park, provide the diverse habitat required to support a variety of wildlife. Species known or likely to occur at the park include: 20 species of amphibians and reptiles, more than 140 species of birds and 26 species of mammals are known to exist within the park.

- **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."

Potential habitat for rare, threatened or endangered species occurrence is considered low, based upon existing site conditions, including topography, water resources, vegetation and soil factors. However, a colony of a state-listed rare species of an amphipod exists in a stream nearby the park. The existence of this and related species indicates a strong possibility for its presence as a result of site hydrology with similar stream habitats within Potomac Overlook Regional Park.

(Refer to [Appendix C: A Field Guide to Potomac Overlook Regional Park](#) and [Appendix D: Potomac Overlook Regional Park 2002 Natural Resources Inventory](#) for details.)

CULTURAL RESOURCES

The Potomac Palisades region within the Potomac River gorge in Arlington County is rich in archaeological resources, documenting a period of 10,000 years of human occupation, beginning with the Early Archaic period through the first two decades of the twentieth century. The high bluffs, narrow stream valleys and broad interior ridges of the palisades area have supported a variety of human activities through history.

Prehistoric peoples took advantage of the wide variety of natural resources of the region, both biological and lithic, establishing base camps and resource procurement and processing sites at numerous locations.

Native American tribes moved seasonally, forming camps in upland settings, to take advantage of fish, game and numerous plant species that provided ready food sources. Availability of other natural resources, including stone, wood, shell and bones provided materials necessary for tools and domestic necessities.

Historic sites of the region have been documented for three primary land uses from the eighteenth through the twentieth centuries including: agricultural uses and residential occupations; intense land use for military purposes during the Civil War; and development of commercial, industrial and transportation sites throughout the historic period.

- **Previous Research**

Potomac Overlook Regional Park has been the focus of several archaeological investigations, in the 1960's and more recently in 1992.

The 1960s investigation revealed the presence of a significant Native American archaeological resource. In addition to archaeological resources within the park, a 25-acre area of the park site is included within the defined boundaries of the George Washington Memorial Parkway Historic District.

In 1992, R. Christopher Goodwin and Associates, conducted a cultural resources survey of a 1,200-acre portion of the Potomac Palisades. Designed to identify all archaeological and historic architectural resources within that study area, the survey included the entire site of Potomac Overlook Regional Park. This survey identified five previously unrecorded archaeological sites as well as re-investigating the site previously investigated in the 1960's.

Of these six sites, two were not recommended for further work, because of compromised integrity or lack of research potential. The remaining four were significant and are recommended as potentially eligible for listing on the National Register of Historic Places. Three of these site resources are associated with prehistoric Native American habitation and one with 19th-20th century habitation.

The approximately 25 acres of the park within the boundaries of the GW Parkway Historic District are included as a historic landscape, based upon the original right of way of the GW Parkway. The boundaries of the historic district maintain a visual buffer of trees and other features of the original parkway right of way and preserve the scenic and esthetic qualities of the Potomac River Valley, with views and vistas of the monumental core of Washington, D.C.

- **Conclusion**

Archaeological sites, both prehistoric and historic, have been identified within Potomac Overlook Regional Park. Further research of archaeological records of human occupation of the Potomac Palisades region, including the park site, could reveal additional evidence of currently undocumented occupation by prehistoric Paleoindian or Archaic inhabitants and possibly historic occupations dating to the period of contact and initial settlement.

Potential threats to the park's archaeological resources are primarily associated with increased demand for recreational use and residential and commercial development of the surrounding areas.

Construction plans for roadways or other facility development inside the portion of the park within the GW Parkway's Historic District or other development activity outside the park boundaries have the potential to threaten park resources in the future.

(Refer to [Appendix E: Cultural Resources Assessment of Potomac Overlook Regional Park](#) and [Appendix F: Resource Inventory Maps](#) for details.)

Recreational and Facility Resources

- **Recreational Resources**

The nature center at Potomac Overlook Regional Park provides the focus for park activities. It is used primarily for environmental education by surrounding school jurisdictions and the general public. Throughout the year, the naturalist staff provides educational displays, programs, activities and classes about the natural and human history.

The park's proximity to several residential neighborhoods means its numerous trails are well used by the local community for recreational hiking. Volunteer activities, summer concerts and community gardens offer opportunities for the public to become involved with activities and staff at the park.

- **Facility Resources**

Built facilities and infrastructure at the park are minimal, in order to preserve as much of the natural woodland as possible. The park entrance road was formerly the road into the Donaldson property, extending from Marcey Road at the southern end of the park. It follows

the ridgeline through the center of the park, where it stops short of the northern boundary and is used primarily as a park service road.

Upon entering the park property, visitors are required to park their vehicles and continue by foot, passing several trail entrances and the amphitheater on the way to the nature center. The nature center provides space for administrative offices, interpretive displays and small and large meeting areas. Natural surface hiking trails adjacent to the nature center interpret park natural and cultural resources and adjoin nearby demonstrations gardens. The park road continues to the park manager's residence where it terminates. Both the nature center and the residence are structures remaining from earlier occupations of the site, prior to the establishment of the park.

Several nearby trails outside the park include an Arlington County bike trail and various hiking trails through Donaldson Run. Trail connections through Donald Run to the north link to the Potomac Heritage National Scenic Trail, Turkey Run and Gulf Branch Parks and to the south, Zachary Taylor Park and Lee Heights Park.

(Refer to [Appendix C: A field Guide to Potomac Overlook Regional Park](#) and [Appendix D: Potomac Overlook Regional Park 2002 Natural Resources Inventory](#), and [Appendix F: Resource Inventory Maps](#) for details.)

H. SITE CONSTRAINTS AND OPPORTUNITIES

Constraints and opportunities exist at Potomac Overlook Regional Park as at every park. Areas within the park that present possible constraints to and opportunities for future development of the site are defined as areas within the park where the physical site conditions or the existence of a certain resource presents a significant restriction to development.

Constraints

Existing structures in the park occupy a significant percentage of the buildable area within the park. Existing site development, current uses of existing buildings and infrastructure, utility easement locations and sensitive resource areas may preclude use of certain areas for other purposes.

Constraints from steep slopes, existing soils and other natural features, including intermittent streams within the county's designated RPA and RMA, present considerable limitations for additional facility development. The park's location along the edge of the Potomac River gorge, with its unusual and high quality habitat, can also be considered a constraint to facility development. Areas of known cultural resources present obstacles to facility development on significant portions of the park site. Park development within the boundary of the GW Parkway Historic District could have implications that would need to be considered while planning proposed improvements within that area.

Constraints to site development that could not be mapped relate to the presence of previously unidentified resources, threatened or endangered species and archaeological sites. Potential for these resources exist within the park property, requiring further, site-specific investigations. Constraints outside the control of

NVRPA include possible development of county or interstate roads, lack of available public utilities or adverse effects to the park resulting from decisions by non-NVRPA entities.

Opportunities

Opportunities for additional recreational use within the park could include areas that, while not suitable for development of structures or some facilities, may be suitable for other uses. Possibilities exist for expansion or development of new or additional educational programs and low-impact activities within the park. Areas adjacent to existing infrastructure, including the road and utilities, would be logical locations to consider future expansion of built facilities, if not constrained by other factors.

I. PARK RESOURCE MANAGEMENT ZONES

Resource management zones for Potomac Overlook Regional Park conform to the resource management and use guidelines in NVRPA's *Policy Plan* and *Park Classification System*, for Regional Recreational/Special Multi-Use Parks.

These include a Recreation Zone, to accommodate a variety of compatible recreational facilities capable of withstanding intensive public use, park infrastructure and a Natural Resource Protection Zone, for protecting and restoring important natural areas such as wildlife habitats, significant archaeological sites, scenic areas and regional water resources.

Identification and delineation of zone boundaries within Potomac Overlook Regional Park was based upon physical site constraints and opportunities, existing cultural and environmental resources, current land use and potential for future uses and management within the park.

Cultural resources at Potomac Overlook Regional Park may exist within any of the 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

The majority of the land comprising the park has been designated as a Natural Resource Protection Zone. 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:

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

Recreation Zone

The Recreation Zone includes the small, developed areas of the park associated with the "core" of park infrastructure and facility development, including structures, road, parking area and utilities. The primary purpose of the Recreation Zone areas within Potomac Overlook Regional Park is to provide park visitors educational experiences, through programming and activities focusing on resource interpretation, environmental education and the interrelationship of human and natural history.

This management zone includes existing or future park structural facilities, recreational facilities, park infrastructure and visitor services consistent with the mission of the park. Research and analysis of existing resources will be completed prior to any site development or other land-disturbing activity.

Potential uses permitted:

- Interpretation and education
- Resource management
- Research
- Support infrastructure
- Low impact recreation
- High impact recreation

(Note: See [Potomac Overlook Regional Park Resource Management Zones Map](#), 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
- Interpretive Plans
- Park Operations and Management Plan
- General Management Plan revisions
- Other planning projects

Potomac Overlook Regional Park has been identified in three planning projects currently under way; NVRPA currently participates in an advisory capacity in these planning projects:

- The Potomac Heritage National Scenic Trail. Designated a unit of the National Park Service system in 1983, the 704 mile trail will provide a corridor between the Chesapeake Bay and the Allegheny Highlands, to enhance public awareness of the resources of the Potomac River and Chesapeake Bay watershed.

- The Mount Vernon Multi-Use Trail Extension Feasibility Study. Initiated by the National Park Service, this study proposes to extend the trail from Theodore Roosevelt Island, north to the American Legion Bridge.
- *A Guide to the Potomac River Gorge* is a cooperative project of the National Park Service and George Washington University's International Institute of Tourism Studies. The guide will complement existing and planned guides for other regions including the multi-jurisdictional Potomac Heritage National Scenic Trail.

Research Projects and Studies

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

- Detailed natural resource inventories
- Detailed prehistoric and historic archaeological surveys
- Volunteer program expansion

K. LAND ACQUISITION

A stated goal of the NVRPA is to protect regionally significant resources through acquisition of strategic lands as they become available and to incorporate the management of these resources into park General Management Plans. Acquisition may proceed by the dedication process, purchase or other means.

As financial and staffing resources and other special opportunities become available, NVRPA will consider potential acquisition sites to provide areas for resource protection, recreational use and water access, 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). The purpose of the CIP is 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 a park's 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.