George Washington Memorial Parkway

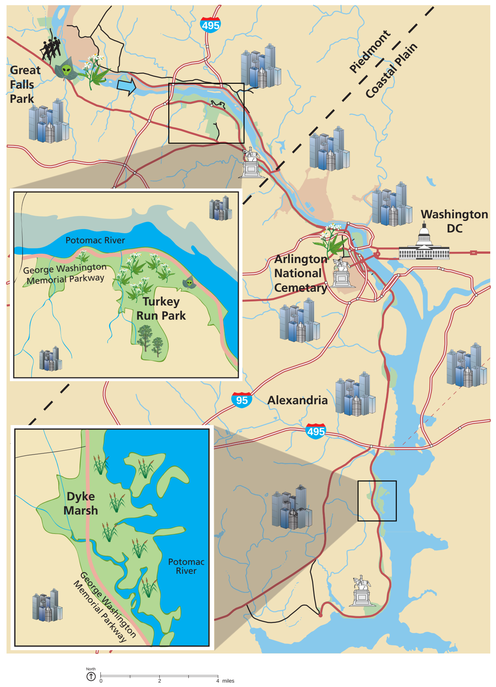
Maryland, Virginia, District of Columbia

National Park Service
U.S. Department of the Interior

National Capital Region Network

A Crossroads Where People, Nature and History Interact

George Washington Memorial Parkway was established to protect the scenic views along the Potomac River and its tributaries in the Washington, DC area. The park's 7,210 acres provide habitat for dozens of state-listed species of rare, threatened, or endangered plants and animals, many of which are associated with rare plant communities of the Potomac River Gorge. The Parkway is the most visited of the National Capital Region parks and the sixth most-visited unit in the National Park System, with over seven million recreational visits in 2004. This high human visitation results in management challenges. Development along and within the park's boundaries and the related introduction of invasive species threaten park resources.



A carpet of Virginia blue bells cover the forest floor in the spring.

Invasive poison ivy, a challenge for park staff to manage.

Resource Values

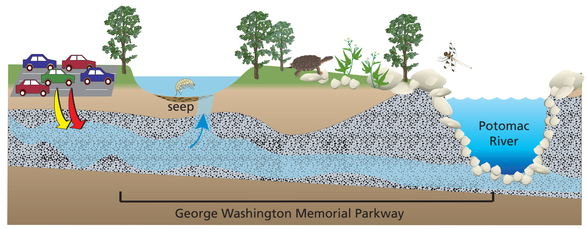
- Freshwater flow: Potomac River
- Physiogeographic regions
- Historic sites
- Rare, threatened and endangered species: Virginia mallow
- Wetlands

Resource Stressors

- Development: urban
- Visitor use
- Invasive/exotic plants

Biodiversity

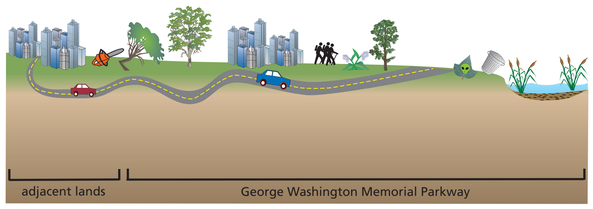
Potomac Gorge is a site of rich biodiversity



Shared between George Washington Memorial Parkway and Chesapeake & Ohio Canal National Historical Park, the Potomac Gorge protects rare, threatened, and endangered plants and animals, including vertebrates and invertebrates that are adapted to the unique, complex, rock topography and the constant flooding and scouring forces of the Potomac River. The Gorge has a complex system of wetlands including vernal pools and seeps where globally rare amphipods occur. The volume and quality of the groundwater that feeds these systems are affected by increased impervious surface run-off of nutrient and pollutant inputs.

Ecosystem Pattern and Processes

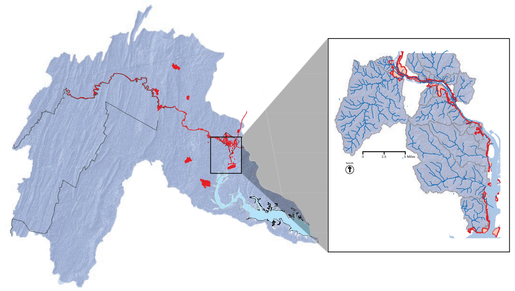
Park units connect in a fragmented landscape



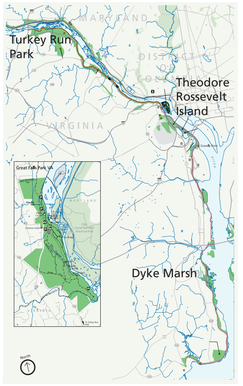
Much more than a road, George Washington Memorial Parkway protects a system of valuable natural resource patches in the urban environment of Washington, DC. Preserving the ecosystem health, function, and connectivity of these wetlands , wildflower meadows and mature forests is important for the general health of the Potomac River watershed. However, due to adjacent urban development and visitor use pressures , this linear park's fragmented resources are heavily impacted by the rapid spread of invasive exotics , tree cutting , dumping , and the demand for new trails and parking lots.

Park wetland and upland habitats provide for a diverse array of many plants and wildlife.

George Washington Memorial Parkway Watershed



(Above left) Potomac River watershed and National Capital Region Network parks (red). (Above right) George Washington Memorial Parkway watershed and boundary.



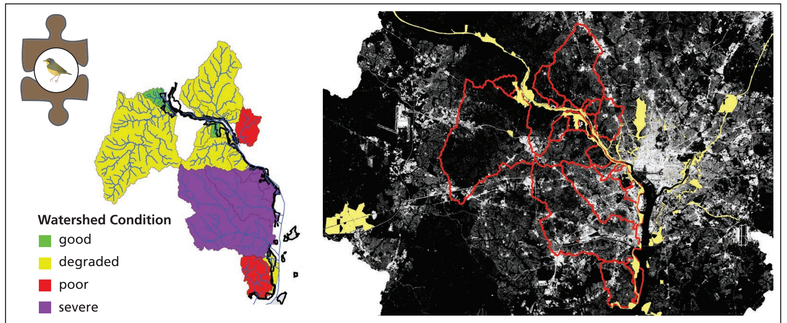
Park map showing major roads and waterways.

Vital Signs Monitoring

Assembling the puzzle

Park vital signs monitoring is designed to inform managers of the condition of water, air, plants and animals, and the various ecological, biological, and physical processes that act on those resources. This site-specific data will provide parks the information needed for ecologically sound management of the natural resources.

In the George Washington Memorial Parkway, data are being collected on **Biodiversity** and **Ecosystem Pattern and Processes** with reference to park specific concerns as well as understanding regional issues.



(Above left) The amount of impervious surface can be related to George Washington Memorial Parkway watershed condition. (Above right) A satellite map showing the amount of impervious surface (white areas) as it relates to the park boundaries (yellow) and watersheds (red).

National Capital Region Inventory & Monitoring Program
National Park Service
www.nps.gov/cue

Integration & Application Network (IAN)
University of Maryland Center for Environmental Science
www.ian.umces.edu

Photos by NPS