



## Park Vital Signs Monitoring: A Commitment to Resource Protection

Americans expect the National Park Service to preserve and protect the nation's heritage, including living and nonliving features of ecosystems. However, protection of national parks is an extremely complicated and difficult task. Park ecosystems are complex and constantly changing over time and space. Managers must be capable of determining whether the changes they observe in park resources are the result of natural variability or the effects of human activities. To sustain the health of these systems, to diagnose threats to their health, and to mitigate those threats, park managers need to identify and constantly monitor changes in vital signs of parks, just as physicians monitor the vital signs of their patients. The price for protecting our parks is constant vigilance.

As part of the Natural Resource Challenge, the National Park Service is implementing natural resource monitoring throughout the agency. This effort will ensure that all park units that contain significant natural resources will possess the basic resource information needed for effective, science-based managerial decision-making and resource protection.

*Air quality  
monitoring,  
Olympic National  
Park*



Parks have been organized into 32 networks linked by geography and shared natural resource characteristics to facilitate collaboration, information sharing, and economies of scale in natural resource monitoring. The level of funding available through the Natural Resource Challenge will not allow comprehensive monitoring in all parks, but will provide a minimum infrastructure for initiating natural resource monitoring in all parks that can be built upon in the future.

Park networks will design a single, integrated monitoring program to monitor both physical and biological resources such as air quality, water quality, geologic resources, weather, fire effects, threatened and endangered species, exotic species, and other flora and fauna. Most of the funding will come through Park Vital Signs Monitoring funding, with supplements specific to water and air quality monitoring. The Natural Resource Program Center divisions for Air Resources, Biological Resource Management, Geologic Resources, Natural Resource Information, and Water Resources will provide technical assistance to park networks for developing these integrated monitoring programs.

Each monitoring network will be guided by a board of directors made up of park superintendents, the regional inventory and monitoring coordinator, and the network monitoring coordinator, who will specify desired outcomes and evaluate performance for the network's monitoring program. The board will make decisions regarding the development and implementation of the monitoring strategy and will promote accountability for the monitoring program. Initiation of monitoring programs in all 32 networks is planned to be phased in over a four-year period.





*Park Vital Signs Monitoring Networks  
(September 2000)*

**Funded in FY 2001 for Core Park Vital Signs Monitoring and Water Quality Monitoring**

**North Coast and Cascades**

A network consisting of seven parks located in the Pacific Northwest.  
Reference park: Olympic National Park

**Northeast Coastal and Barrier**

A network consisting of eight parks located in the New England area.  
Reference park: Cape Cod National Seashore

**Heartland**

A 15-park network located in eight Midwestern states.  
Reference park: Wilson’s Creek National Battlefield

**Sonoran Desert**

An 11-park network in the southwestern United States.  
Reference park: Organ Pipe Cactus National Monument

**Cumberland/Piedmont**

A network consisting of 14 parks located primarily in the southeastern United States.  
Reference park: Mammoth Cave National Park

**Funded in FY 2001 for Water Quality Monitoring Only and Proposed for FY 2002 for Core Park Vital Signs Monitoring**

**Central Alaska**

A network of three parks located in interior Alaska.  
Reference park: Denali National Park and Preserve

**National Capital**

An 11-park network located in the Washington, D.C., area.  
Reference park: Prince William Forest Park

**Northern Colorado Plateau**

A network consisting of 16 parks located in the intermountain West.  
Reference park: Canyonlands National Park

**San Francisco Bay**

A network of six parks located in the vicinity of San Francisco, California.  
Reference park: Point Reyes National Seashore

**Greater Yellowstone**

A network consisting of three parks located in the northern Rocky Mountains.  
Reference park: Yellowstone National Park

**Appalachian Highlands**

A network of four parks located in the southeastern United States.  
Reference park: Great Smoky Mountains National Park

**Mediterranean Coast**

A three-park network located in southern California.  
Reference park: Channel Islands National Park

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*The National Park Service cares for special places saved by the American people so that all may experience our heritage.*

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The Natural Resource Challenge is increasing NPS scientific understanding in parks all around the nation, from Maine to Florida to Alaska and the Pacific Islands. For more information about the Natural Resource Challenge, visit [www.nature.nps.gov/challenge/nrc.htm](http://www.nature.nps.gov/challenge/nrc.htm).

