

STATE
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PARKS®

march 2006

CATOCTIN MOUNTAIN PARK

A Resource Assessment



National Parks Conservation Association
Protecting Parks for Future Generations®

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Center for State of the Parks

More than a century ago, Congress established Yellowstone as the world's first national park. That single act was the beginning of a remarkable and ongoing effort to protect this nation's natural, historical, and cultural heritage.

Today, Americans are learning that national park designation alone cannot provide full resource protection. Many parks are compromised by development of adjacent lands, air and water pollution, invasive plants and animals, and rapid increases in motorized recreation. Park officials often lack adequate information on the status of and trends in conditions of critical resources.

The National Parks Conservation Association initiated the State of the Parks® program in 2000 to assess the condition of natural and cultural resources in the parks, and determine how well equipped the National Park Service is to protect the parks—its stewardship capacity. The goal is to provide information that will help policy-makers, the public, and the National Park Service improve conditions in national parks, celebrate successes as models for other parks, and ensure a lasting legacy for future generations.

For more information about the methodology and research used in preparing this report and to learn more about the Center for State of the Parks®, visit www.npca.org/stateoftheparks or contact: NPCA, Center for State of the Parks®, P.O. Box 737, Fort Collins, CO 80522; Phone: 970.493.2545; E-mail: stateoftheparks@npca.org.

Since 1919, the National Parks Conservation Association has been the leading voice of the American people in protecting and enhancing our National Park System. NPCA and its 300,000 members and hundreds of partners work together to protect the park system and preserve our nation's natural, historical, and cultural heritage for generations to come.

- * More than 300,000 members
- * 8 regional offices
- * 35,000 activists

A special note of appreciation goes to those whose generous grants and donations made the report possible: Ben and Ruth Hammett, the Efroymsen Fund of the Central Indiana Community Foundation, and anonymous donors.

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REPORT SUMMARY



JIM NATIONS

Catoctin Mountain Park 1

Visitors to Catoctin Mountain Park find streams replete with native trout; forests of maple, hickory, ash, oak, and cherry trees; and air alive with the sounds of birds, chipmunks, and other wildlife. The park's beauty is a triumph of nature's ability to heal: the area was devastated by logging and agriculture during the 18th and 19th centuries.

The land's potential as a recreational area for Washington, D.C., and Baltimore residents was

recognized during the 1930s. The National Industrial Recovery Act of 1933 spurred the federal government to begin acquiring land near large cities—specifically land that was no longer suitable for agriculture—to create recreational areas accessible to urban populations. The Catoctin area fit this description perfectly—it was deemed “submarginal land” because of previous exploitation and it is only about 60 miles from Baltimore and Washington, D.C.

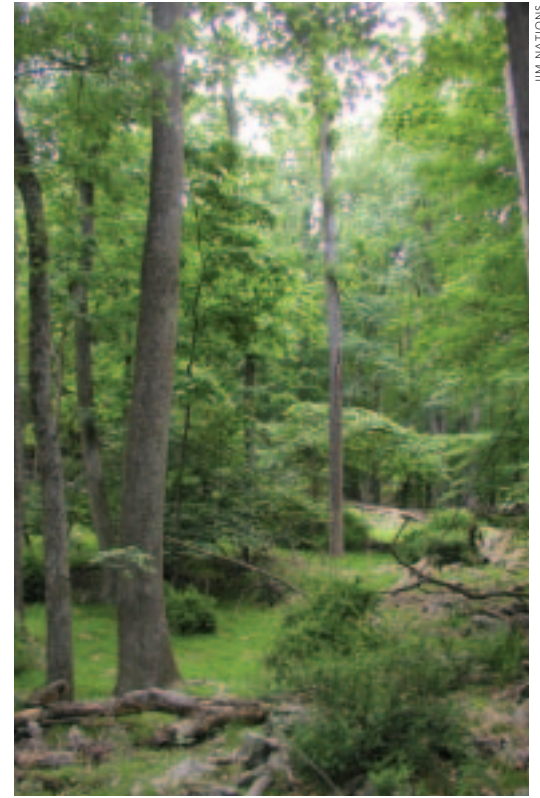
The land within Catoctin Mountain Park was devastated by logging and agriculture. Today, it features an impressive second-growth ecosystem as a result of restoration efforts and natural regeneration.

RESOURCE MANAGEMENT HIGHLIGHTS

- The land within Catoctin Mountain Park was once a thriving old-growth forest, but logging for charcoal-production and agriculture seriously altered the ecosystem. After the federal government acquired the land, it was allowed to regenerate with some assistance by the Civilian Conservation Corps, which planted 5,000 trees in 1939 and 1940. The park today boasts an impressive second-growth forest.
- Catoctin also celebrates the return of native wildlife such as brook trout, bear, beaver, and wild turkey that had become rare or disappeared entirely from the area.
- Cultural resources work includes historic building restoration projects in Camp Misty Mount and Camp Greentop and the completion of two documents that will help staff better understand and protect cultural resources—a Cultural Landscape Inventory and a Historic Resource Study.
- The park continues to battle non-native pests and diseases with much success. A gypsy moth control program prevented large-scale tree loss, and cooperation with researchers at the University of Tennessee has generated a variety of dogwood that is resistant to the deadly disease dogwood anthracnose.



Camp Misty Mount is home to historic cabins.



Beginning in 1936, the Works Progress Administration and, later, the Civilian Conservation Corps—both federal work programs—supplied the labor to build camps, picnic areas, and administrative buildings, plant thousands of trees, and turn the degraded land into a thriving second-growth ecosystem, dubbing the park “Catoctin Recreation Area.” The name later changed to Catoctin Recreational Demonstration Area and then to Catoctin Mountain Park.

In 1942, Catoctin became home to President Roosevelt’s private retreat, Shangri-la, because of its convenient proximity to Washington, D.C. In 1954, the southern portion of the original Catoctin Recreational Demonstration Area was returned to the state government and became Cunningham Falls State Park.

Today, Catoctin Mountain Park encompasses 5,810 acres and is home to more than 1,000 plant and animal species. Quarry sites, charcoal hearths, a whiskey still, and rustic-style cabins are evidence of the region’s human history.

RATINGS

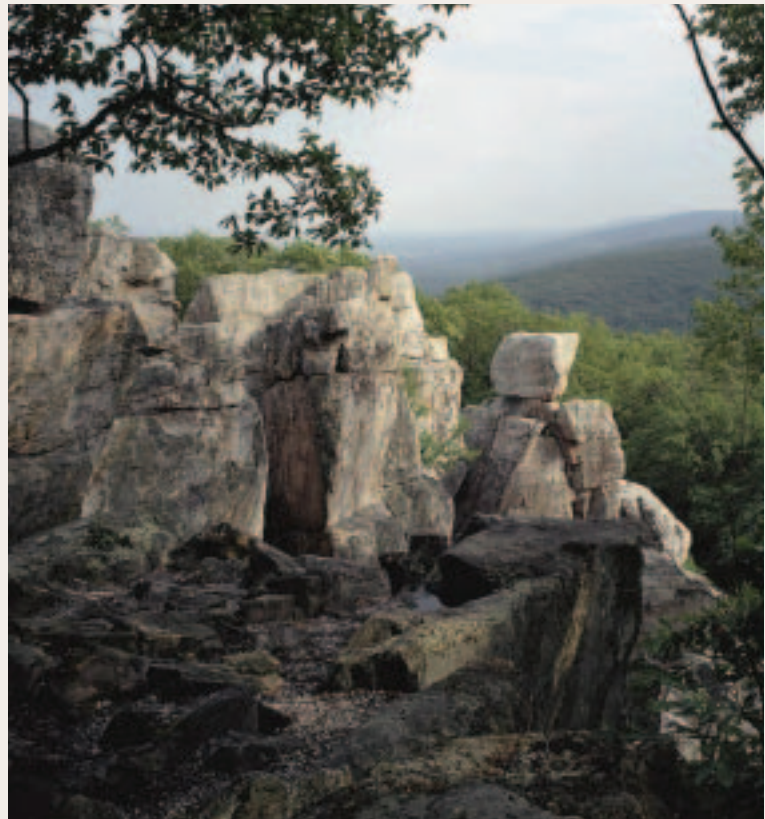
Current overall conditions of Catoctin's known **natural resources** rated a "good" score of 82 out of 100. This is one of the highest natural resources scores of all the parks assessed by the Center for State of the Parks to date. Ratings were assigned through an evaluation of park research and monitoring data using NPCA's Center for State of the Parks comprehensive assessment methodology (see Appendix). Challenges include too many white-tailed deer that threaten to extirpate native plants in the forest understory and a variety of non-native pests, diseases, and invasive plants.

Overall conditions of the park's known **cultural resources** rated 64 out of 100, indicating "fair" conditions. Funding and staffing shortfalls make it difficult for the park to properly care for and interpret cultural resources. The park lacks a cultural resources specialist with an appropriate degree and training to provide dedicated protection and management of cultural resources.

Invasive species such as beefsteak plants have become problems at Catoctin, and the park needs funds to support non-native plant management activities.



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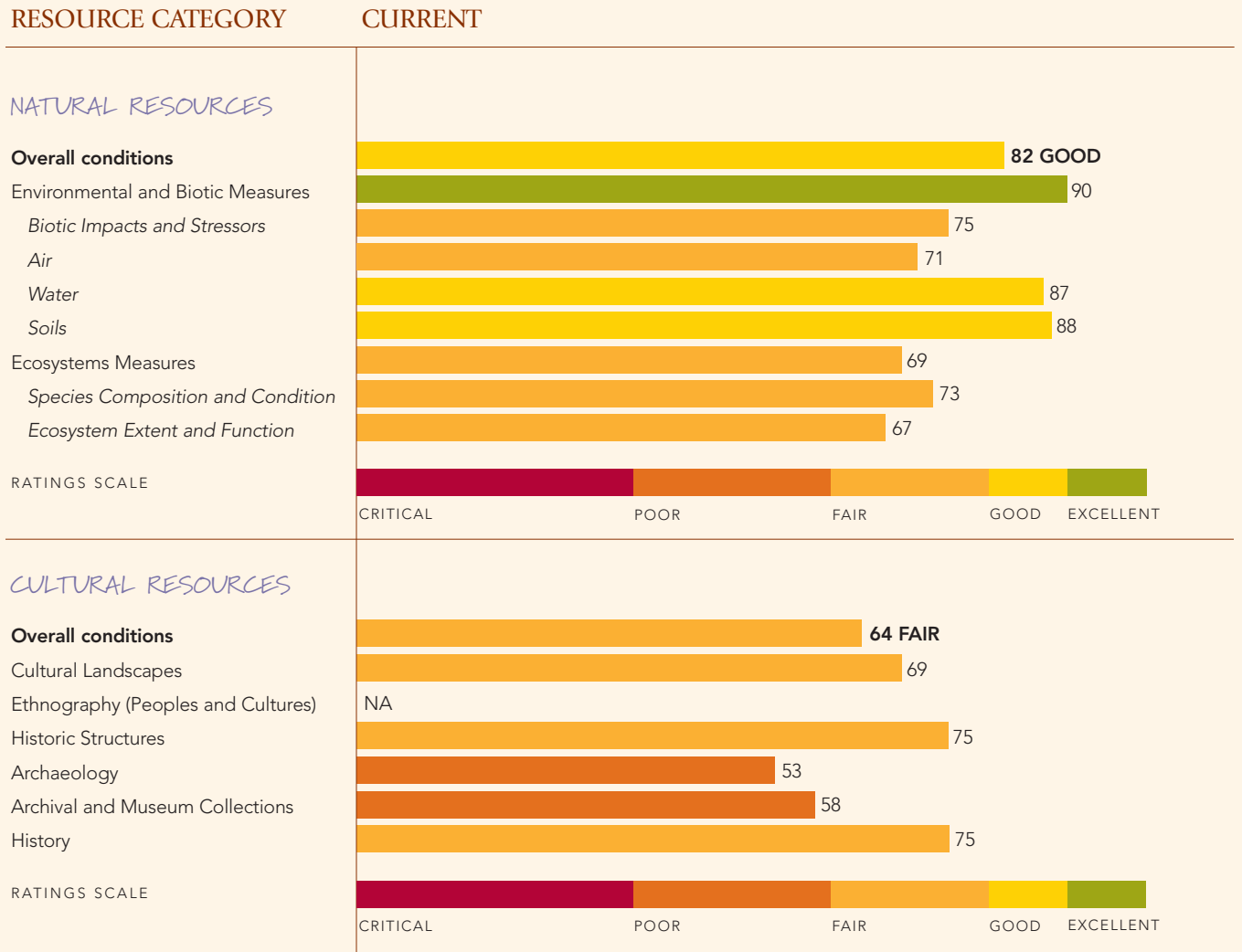
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Catoctin has more than 25 miles of hiking trails that lead to scenic vistas and well-known landmarks such as Chimney Rock.

CATOCTIN MOUNTAIN PARK AT A GLANCE

- Located about 60 miles from both Baltimore and Washington, D.C., Catoctin Mountain Park provides opportunities for city-dwellers and suburbanites to enjoy hiking, camping, fishing, and other recreational activities.
- Catoctin Mountain Park exemplifies the conservation programs associated with Franklin Delano Roosevelt's New Deal era.
- In 2003, about 620,000 visitors to Catoctin spent an estimated \$27.57 million and supported 683 jobs (Michigan State University Money Generation Model II).
- The park has hosted U.S. presidents since the 1940s and is home to the presidential retreat Camp David.
- Big Hunting Creek within Catoctin was the first "catch-and-release" trout fishing area in Maryland, and continues to attract fishing enthusiasts.

Note: When interpreting the scores for natural resource conditions, recognize that critical information upon which the ratings are based is not always available. This limits data interpretation to some extent. For Catoclin Mountain Park, 85 percent of the information requirements associated with the methods were met.



The findings in this report do not necessarily reflect past or current park management. Many factors that affect resource conditions are a result of both human and natural influences over long periods of time, in many cases before a park was established. The intent of the Center for State of the Parks® is to document the present status of park resources and determine which actions can be taken to protect them in the future.

KEY FINDINGS

- Catoctin is home to 11 plant species listed as rare, threatened, or endangered by the state of Maryland. White-tailed deer (*Odocoileus virginianus*), which have overpopulated the park and feed on nearly all vegetation within reach, could cause some of these species to disappear from the park.
- Non-native pests and diseases have decimated some tree species within Catoctin and throughout the eastern United States during the last century, leading to changes in the structure and species composition of forests. Resource managers are pursuing effective treatments for some pests and diseases, but controls are usually costly and labor-intensive; additional funds are needed to successfully stem some outbreaks and prevent further destruction. Because the park's natural resources base funding is limited, staff must pursue special project funding when needed.
- Invasive plants have become an increasing problem in Catoctin, and additional support is needed for non-native plant control.
- Light and sound pollution threaten Catoctin's dark night skies and natural soundscapes. Many visitors believe that the sounds of vehicles on nearby highways detract from the natural or rustic experience. Additional development and road expansion around Catoctin have the potential to further degrade these resources.
- The park lacks a cultural resources specialist with an appropriate degree and training to provide dedicated protection and management of cultural resources. Instead, the park relies heavily on the professional expertise of the National Park Service National Capital Region cultural resources staff.
- Unknown numbers of archaeological sites remain undiscovered, unprotected, and uninterpreted for visitors because the park lacks the funds and staff to complete comprehensive surveys and inventories.
- Most of the park's historic structures are still used by visitors and staff, which helps ensure that they receive continued care and maintenance.
- Because Catoctin is a relatively small park, most staff have multiple duties that include combinations of resource management, law enforcement, and interpretation. With increased law enforcement responsibilities in response to the attacks of September 11, 2001, park staff have less time to spend on resource management and interpretation. Increasing staff numbers would allow individuals to focus on specific areas of expertise to the benefit of resources, visitor services, and security.
- Catoctin employs about nine fewer staff than five years ago. Filling these former positions, hiring other needed staff, and employing innovative solutions to staffing shortfalls would enhance visitor services, resource protection, and general park maintenance.

COURTNEY HURST





THE CATOCTIN ASSESSMENT



NATURAL RESOURCES— PARK PROVIDES HAVEN FOR WILDLIFE AND URBANITES

The assessment rated the overall condition of natural resources at Catoctin Mountain Park a score of 82 out of 100, which ranks the park in good condition. The park has fair air quality (somewhat degraded by ozone) and good water quality, but diseases, pests, non-native plants,

and a large population of white-tailed deer threaten the health of the park's ecosystems.

NATIVE SPECIES—SOME RECOVERING, OTHERS FACE EXTIRPATION

Catoctin Mountain Park is home to more than 280 native animal species and 750 native plant species. Birders delight in the park's resident species as well as migratory ones, from petite dark-eyed juncos to an occasional bald eagle.

Ginseng, a species of concern, has all but disappeared from the park in the last couple of years because of poaching and deer consumption.

MARYLAND STATE LISTED SPECIES

Endangered

Long-bracted orchid (*Coeloglossum viride*)
Torrey's mountain mint (*Pychanthemum torrei*)

Threatened

Leatherwood (*Dirca palustris*)
Large purple fringed orchid (*Plantanthera grandiflora*)

Species of Concern

American Chestnut (*Castanea dentata*)
Pale corydalis (*Corydalis sempervirens*)
American ginseng (*Panax quinquefolius*)
Nodding trillium (*Trillium cernuum*)
Butternut (*Juglans cinerea*)
Basal bee balm (*Monarda clinopodia*)
False pennyroyal (*Trichostema brachiatum*)
Timber rattlesnake (*Crotalus horridus*)

Frogs, toads, lizards, snakes, and turtles may be spotted by careful observers, while white-tailed deer, squirrels, and chipmunks are regularly seen by visitors. Catoclin does not contain any known federally listed threatened or endangered species, but the park is home to 11 plant species and one animal species that are classified by the state of Maryland as endangered, threatened, or as species of concern.

Ginseng, a species of concern, has all but disappeared from the park in the last couple of years because of poaching and deer consumption. Park staff are on the lookout for ginseng, but only a few plants have been found. Lady slipper orchids and several other orchid species already have disappeared from loss of habitat and over-browsing. Staff fear that if large purple fringed orchids (state-listed as threatened) are not properly protected, they will face the same fate as these extirpated species. Staff have placed fences around some remaining orchids to protect them from deer.

Though Catoclin faces challenges protecting some plant species such as the large purple fringed orchid, the park celebrates the return of two animal species that had been absent for decades. As a result of restocking efforts that began in the 1960s, wild turkeys (*Meleagris gallopavo silvestris*) are now common throughout the park. While population increases are reassuring to wildlife managers, the turkeys still face several threats, including loss of habitat from deer overpopulation, poachers, and bad weather that compromises nesting success. Joining the wild turkeys with an unexpected reappearance are black bears (*Ursus americanus*), once extirpated from this part of the state because of timbering and wetland destruction. Since the 1980s, a ban on bear hunting, improved forestry practices, and forest regeneration have allowed reestablishment of the large mammal in Maryland, though park visitors rarely get glimpses of them. Small mammal surveys in 1998 and 2001 show promising recovery for beaver and mink as well.

MIRE BENDER/USFWS



Black bears, once extirpated from the area, are returning.

INVASIVE PLANTS, PESTS, AND DISEASES—FORESTS SUFFER FROM A HOST OF ENEMIES

In the last century and a half, several pests and diseases have decimated important tree species in eastern forests. American chestnuts, once known as the “redwoods of the east,” fell victim to an Asian fungus (*Endothia parasitica*) that was accidentally introduced to the east coast in the early 20th century. By 1940, 3.5 billion chestnuts had been killed by the disease. In Catoctin, the trees survive only in the forest understory because the fungus attacks and kills them once they grow to 20 feet tall.

Catoctin’s population of butternut trees (*Juglans cineria*) has also been declining for several years. The exact cause is unknown, but many researchers suspect a connection to butternut canker disease (*Sirococcus clavigigenti-juglandacearum*), which originated in the southern United States and is beginning to spread north. The loss of butternuts is a blow to wildlife that depend on the trees for food.

Dogwood anthracnose (*Discula destructiva*) has almost destroyed Catoctin’s dogwoods during the last two decades. The disease was first noticed in Maryland in 1983, and by 1991, an estimated 79 percent of Catoctin’s dogwoods were dead. Shenandoah National Park and Great Smoky Mountains National Park have also reported significant losses of the valuable trees, which produce berries that are high in fat and protein, and are favored by many birds. Amidst the mass mortality caused by dogwood anthracnose, there is a ray of hope: some of Catoctin’s dogwoods survived the epidemic and displayed resistance to the disease. By using clones of these survivors, researchers with the University of Tennessee Dogwood Research Group have developed an anthracnose resistant variety of dogwood called Appalachian Spring. They hope to use this variety to restore dogwoods to Catoctin and nearby areas.

Forest pests, particularly the gypsy moth



(*Lymantria dispar*) and the hemlock woolly adelgid (*Adelges tsugae*), have also caused problems within Catoctin and regional forests. Caterpillars of the gypsy moth voraciously feed on the leaves of hardwood trees, sometimes completely defoliating them. Outbreaks of the moth have prompted Catoctin staff to employ both biological controls and insecticides to target the invaders. The park’s control program has shown much success—tree defoliation and mortality have been minimal.

The hemlock woolly adelgid, an aphid-like insect native to Asia, sucks the sap from hemlock needles causing them to drop. These insects can kill a tree within five to ten years. The death of hemlocks leads to soil erosion, reduced shade on streams that support native brook trout, and a loss of food and shelter for wildlife. Catoctin staff have treated some infected trees with horticultural oil and insecticide injections, and these treatments have shown some success. Biological controls also appear promising: a small beetle native to Asia

The park needs funds to hire staff to fight invasive plants such as mile-a-minute.

White-tailed deer have overpopulated the park and threaten to extirpate some rare plant species.



U.S. FISH AND WILDLIFE SERVICE

feeds exclusively on the hemlock woolly adelgid. The park's adelgid population is currently too small to warrant parkwide treatment, but staff will continue to monitor adelgids and consult with the U.S. Forest Service on management strategies. If more treatments are necessary, Catoctin must apply for special Park Service funds.

In addition to pests and diseases, Catoctin is battling more than 100 non-native plant species, 18 of which are invasive. Seven of these invasive species are of particular concern because of their abilities to grow quickly and replace native vegetation: Japanese stiltgrass (*Microstegium vimineum*), Japanese barberry (*Berberis thunbergii*), garlic mustard (*Alliaria petiolata*), beefsteak plant (*Perilla frutescens*), multiflora rose (*Rosa multiflora*), tree of heaven, (*Ailanthus altissima*), and mile-a-minute (*Polygonum perfoliatum*). Catoctin staff have partnered with the National Capital Region Exotic Plant Management Team to fight these

species in select parts of the park, but additional support is needed for seasonal non-native plant management activities.

WHITE-TAILED DEER—EATING THEMSELVES OUT OF HOUSE AND HOME

Wildlife sightings make park visits even more memorable, but Catoctin's most-seen large mammals, white-tailed deer, are becoming so commonplace that they are having a detrimental effect on other park resources. The animals lack significant natural predators and hunting is not permitted in Catoctin, which means that populations in the park are limited primarily by available food. The deer eat just about any plant that is within reach, including rare ones such as the state-listed threatened large purple fringed orchid. Deer also strip trees of bark, which kills many trees, and eat tree seedlings, which prevents other trees from ever becoming established. This loss of vegetation compro-

mises the habitat and survival of other species such as wild turkeys.

A survey during spring of 2003 estimated the deer population at 160 animals per square mile; by fall of that year, the estimate had risen to 193 animals per square mile. As populations grow, the amount of food for each individual deer decreases, the likelihood of disease transmission increases, and the health of the population declines. Assessments of Catoctin's deer indicate that they are in poor health.

To address resource damage and deer population health, resource management staff have begun to prepare an Environmental Impact Statement for a Deer Management Plan. The public is encouraged to provide input on the plan. For more information, please visit the park's web site (www.nps.gov/cato). Release of a final plan is projected for 2006. Current options that could be used to address deer overpopulation and resource damage include fencing around sensitive plants, using repellents on plants, directly reducing the deer population, using reproductive control, or employing a combination of various techniques in different areas of the park.

SURROUNDING DEVELOPMENT—NOISE AND LIGHT POLLUTION OF CONCERN

Although Catoctin Mountain Park is located just 60 miles from both Baltimore and Washington, D.C., the park maintains its reputation as a sanctuary from urban life. In 2004, nearly 900,000 people visited the park to hike, camp, climb, ski, fish, or otherwise take a break from life's daily routine. Conserving the park's resources unimpaired for the enjoyment of future generations is Catoctin's primary mission, and it is becoming more challenging as surrounding populations grow, development increases, and roads expand.

The population of Frederick County, which encompasses Catoctin, grew by 30 percent between 1990 and 2000. The lands adjacent to the park have mixed uses: Catoctin

shares about 37 percent of its border with agricultural lands, 27 percent with residential areas, 18 percent with forest in private ownership areas, and 18 percent with Cunningham Falls State Park.

Catoctin boasts dark night skies and does not suffer greatly from light pollution, but this could change as highways surrounding the park are expanded. Expansion of U.S. Route 15, which runs near the southeast border of the park, and associated development would increase light- and noise pollution in parts of the park. The sound of vehicles traveling at high speeds along nearby highways already disturbs the outdoor experience for some park visitors.

Unwelcome noise also comes from construction activities, visitor crowding, and adjacent land use. Catoctin staff are studying the park's soundscape and will identify issues, find ways to address them, and determine if policy changes are needed to mitigate any identified noise problems.

Park Central Road takes visitors on a scenic drive through Catoctin. There is concern that the expansion of highways outside the park would increase light and noise pollution in Catoctin.



JIM NATIONS

AIR QUALITY—PARK INITIATING MONITORING

Catoctin does not have a National Park Service air quality monitoring station, but it does have a National Atmospheric Deposition Program site that monitors wet deposition of several pollutants. According to park staff, Catoctin Mountain Park has relatively good air quality despite its proximity to the industrialized and highly populated Ohio River Valley. Pollution comes largely from automobiles in Washington, D.C., and Baltimore, but emissions from factories, power plants, and other industrial sources also degrade air quality. Ozone, smog, and acid rain are primary concerns.

Pollutants reduce visibility and cause health problems for both humans and park flora and fauna. Acid rain and ozone directly damage plants and trees, sometimes leading to sickness or death of some species. This in turn affects those animals that rely on the plants and trees for food and shelter, as well as the trout and other fish that benefit from the shade they cast on streams. Catoctin conducted a few ozone monitoring studies in the 1980s, which indicated some ozone damage to plants, but more recent monitoring has shown little damage.

Ozone is a respiratory irritant that is especially harmful to people with asthma or other breathing difficulties. When ozone levels make it unsafe to be engaged in strenuous activities outside, Catoctin issues warnings in partnership with the Metropolitan Washington Council of Governments. Warning levels are associated with colors—red, orange, yellow, and green—with red signifying the worst ozone levels. In 2002, the park had 36 red and orange days, while in 2003 there were only seven. In 2004, the park had only a few yellow days and no red or orange days, in part, because the weather was windier, wetter, and cooler than in past years.

An air quality monitoring program is just getting started at the park because the problems have never been as significant as other resource

management issues, and the natural geology and vegetation of the forest have proven to be excellent buffers for acid rain and other pollutants. Staff hope that the new monitoring programs will help identify the sources of any problems and provide the basis for the development of solutions.

WATER QUALITY—HEALTHY CREEKS SUPPORT FISH AND FISHING

Brook trout, brown trout, and rainbow trout inhabit the waters of Catoctin's two main streams—Big Hunting Creek and Owens Creek—and entice anglers to try their hands with special lures and fishing techniques. These streams and their tributaries also support at least 14 additional fish and a host of invertebrate species. Maintaining good water quality to support these species is of utmost importance for the ecosystem and for the continued enjoyment of visitors.

Park staff have been monitoring water quality since 1978, and macro-invertebrates have been sampled in Big Hunting and Owens creeks since 1981. Data from these long-term projects indicate that Catoctin generally has healthy stream communities and good water quality. Continuing these projects is critical so that any water quality problems that may arise can be promptly identified and addressed.

Big Hunting Creek, which weaves across the south boundary between Catoctin Mountain Park and Cunningham Falls State Park, faces bank erosion and changes in flow resulting from the construction of the Hunting Creek Dam in Cunningham Falls State Park. The dam was built in 1972 to provide additional recreational opportunities, and since then several regulations have been placed on the dam and lake to ensure that both have little effect on the environmental health of the stream. Water flow and dissolved oxygen minimums must be met, and stream waters must not exceed a maximum temperature of 72 degrees Fahrenheit.

Concerns about water quality in Owens Creek center on a wastewater treatment plant that discharges water into the stream and nearby wetland. Although serious effects have yet to be observed, park staff have measured higher ammonia levels in Owens Creek and, on occasion, noticed an odor of sewage downstream from the plant.

Other issues affecting water quality in the park include timber harvest near the headwaters of Big Hunting Creek and Owens Creek, as well as new construction and housing developments depleting the groundwater and diminishing flow to seeps that feed the two streams, posing a potential threat to wetland areas within the park. With development comes pressure to build new driveways, parking lots, and roads and to convert existing gravel roads to asphalt. This increase in impervious surfaces affects the natural flow of rainwater.

Many homes adjacent to the park use septic systems, which could leak and contaminate park waters. Catoclin's waters are also potentially affected by silt, nutrients, and animal waste from agricultural lands within the headwaters of Big Hunting Creek.

Development and deer browsing that affect the forest tree line and ground cover may also have adverse effects on the water quality and aquatic life when water warms from lack of shade or soil erodes from the loss of a root system. Catoclin's waterways are also still experiencing effects from the 1999-2001 drought that caused streams to dry out and the Potomac River—in whose watershed the park lies—to have the lowest flow in recorded history.

To maintain the excellent water quality and ensure that these threats do not become bigger concerns, park staff are involved with the Friends of Big Hunting Creek and the Monocacy River Watershed Alliance, which work to find solutions to concerns in four water sources in the region, including Big Hunting Creek and Owens Creek. A nearby cattle farm was recently fenced off along one of Owens Creek's tributaries to ensure that the water is not contaminated with manure and that important buffer plants are not overgrazed. Projects have also been initiated to protect wetland areas and other areas of concern, such as the land near the Owens Creek Campground that is the habitat of the large purple fringed orchid.



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Catoclin's streams support native fish and other species, and they provide recreational opportunities for visitors.



Special project funds support historic building stabilization and restoration.

CULTURAL RESOURCES— PARK'S HISTORY INCLUDES PREHISTORIC PEOPLES, PUBLIC WORKS PROGRAMS, AND U.S. PRESIDENTS

Catoctin scored an overall 64 out of 100 for cultural resource conditions, including archaeology, cultural landscapes, history, historic structures, and archive and museum collections. This score indicates that the park's cultural resources are in "fair" condition. The scores for cultural resources are based on the results of indicator questions that reflect the

National Park Service's own Cultural Resource Management Guideline and other policies related to cultural and historical resources.

The park lacks a cultural resources specialist with an appropriate degree and training to be dedicated to protection and management of cultural resources. To alleviate this shortfall, the park relies heavily on the professional expertise of the National Capital Region cultural resources staff.

Catoctin regularly applies for and has been awarded special project funds for historic building stabilization, a cultural landscape inventory, updates to the List of Classified

Structures, a historic resource study of the park, and a cultural landscape report and cabin restoration work at Camp Misty Mount.

HISTORY—PARK'S UNUSUAL PAST IS WELL DOCUMENTED

Catoctin has undergone quite a few changes since its creation—beginning first as a recreation demonstration area, becoming home to a presidential retreat, housing troops during World War II, and becoming part of the National Park System. The history of this complex park has been well documented: The administrative history of the park was completed in 1988 and will be updated in 2006, and a historic resource study was completed in 2000. The administrative history tells of Catoctin's past from the Great Depression until the 1980s, while the historic resource study discusses the history of the park and the lands it encompasses from the time when American Indians occupied the region to the point when the land became the responsibility of the National Park Service. A detailed study of Civilian Conservation Corps programs in the parks of the National Capital Region was just completed, and a study of the Office of Strategic Services—a precursor to the Central Intelligence Agency that operated in the area during World War II—is currently under way.

CULTURAL LANDSCAPES—ENTIRE PARK IS AN IMPORTANT LANDSCAPE

Cultural landscapes tell the stories of how humans have shaped and been shaped by the natural world. From rural industries such as agriculture and charcoal production, to government activities such as troop housing and training, to recreational pursuits such as camping and fishing, humans have significantly affected Catoctin's landscapes. The entire Catoctin Mountain Park itself is considered a cultural landscape, within which are two component landscapes: Camp Misty Mount and Camp Greentop.

As a whole, the park's cultural landscape includes two periods of significance: the period of rural industry and agriculture and the New Deal period. During the first period of significance, the land was used for timber, charcoaling was a major industry on the mountain, and farms sprang up in areas where soil was fertile. The second period of significance—the New Deal period—began when the federal government acquired the land in order to transform it into a recreation demonstration area. During this time, construction began on Camp Hi-Catoctin, which would become the presidential retreat later named Camp David. The two component landscapes in the park, Camp Misty Mount and Camp Greentop, are representative of



Civilian Conservation Corps workers began projects at Catoctin in 1939. They planted native trees, blocked old logging roads, and built trailside shelters.



Park visitors can stay in rustic cabins at Camp Misty Mount.

the New Deal era, and both are listed as historic districts in the National Register of Historic Places.

The park has an excellent cultural landscapes program. A Cultural Landscapes Inventory (CLI), conducted in 2000, outlines the history, care, and treatment of Catoctin's cultural landscapes. A Cultural Landscape Report (CLR) being written for Camp Misty Mount will expand the historical record and identify treatment opportunities to minimize loss of significant characteristics due to pending development or treatments.

Landscapes enjoy the highest level of protection among the park's cultural resources because they are in constant use and must be kept in good condition in order to remain in use. Identifying maintenance concerns is much

easier when resources are being used. Camps Misty Mount and Greentop are still being used today for their original purposes—camping and other outdoor recreation activities.

Research into World War II use of the park, a cultural landscape maintenance plan, and a systematic photo-based monitoring program (regularly photographing landscapes to document their appearances over time) would further enhance cultural landscape interpretation and protection.

HISTORIC STRUCTURES—STILL ENJOYED BY TODAY'S VISITORS

Rustic cabins constructed of local materials and built by men employed by the Works Progress Administration (WPA), a federal program that provided work to the unemployed during the Great Depression, still stand in Catoctin and are used by park staff and visitors. Camps Misty Mount and Greentop each feature groups of these rustic cabins that provide group camping facilities, together accommodating 268 people (128 at Misty Mount and 140 at Greentop). WPA project headquarters built in 1936 now house the park's resource management staff, while the Blue Blazes Contact Station, built in 1941, now serves as the park's visitor center. A blacksmith shop built in 1936 is used to teach visitors about the park's history. In total, Catoctin has 66 structures on its List of Classified Structures, and all are listed in the National Register of Historic Places. Camps Misty Mount and Greentop are both listed in the register as historic districts.

The most visited sites, such as the campgrounds and the blacksmith shop, are also the best interpreted. Visitors to the campgrounds enjoy campfire talks that include both natural and historical themes, such as the Civilian Conservation Corps (CCC) and WPA contributions to the park. Visitors to the blacksmith shop get to watch interpreters fire up the forge. The park also participates in the "Teaching with Historic Places" program, which offers a



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series of lesson plans based on places listed in the National Register of Historic Places. The history of Camp Misty Mount is included in this program.

About two-thirds of the park's historic structures are in good or fair condition, while the remaining structures are in poor condition. In addition, some of the structures are poorly documented (the park lacks drawings that are up to Historic American Buildings Survey/Historic American Engineering Record standards for these buildings) making it difficult to manage them in ways that maintain their historical integrity.

Maintenance staff inspect the park's structures annually, but comprehensive inspections do not necessarily occur every year. In some years, the inspections may be visual—a matter

of looking over the structures for obvious defects. In other years, maintenance staff actually remove floorboards or inspect the foundations of structures to assess threats. But a lack of funding and staff prevents the park from conducting these thorough inspections every year. Maintenance staff supplement the formal annual inspections by keeping close watch on all of the structures throughout the year and identifying issues before they become major problems.

At this time, the most immediate threats to the structures are biological in nature. When the park was first developed as a recreation demonstration area, the trees in the surrounding forest were fairly small—a leftover effect of the timber industry. Now, however, many of the trees in the area have reached full maturi-

This building, constructed in 1936 of chestnut logs, has served many functions over the past 70 years. Today it serves as the park's resource management center.

ty, have shallow root systems, and tower over the cabins, walls, and other structures. Falling trees have the potential to significantly damage park structures, but staff are trying to minimize the likelihood of such damage by conducting inspections each year to identify and remove trees that pose hazards to structures and visitors.

ARCHAEOLOGY—SYSTEMATIC SURVEY AND INVENTORY NEEDED

Rock shelters and rhyolite (rock used to make tools from 8,000 to 1,200 B.C.) quarry sites are evidence of Catoctin's prehistoric inhabitants, while road traces, charcoal hearths, agricultural sites, colliers' huts, and an early 20th-century whiskey still tell of more recent residents. All 12 of the park's known archaeological sites are included in the Park Service system-wide database, and all are listed in good condition. But the sites are not well documented and no funds are dedicated to

maintaining them. None of the sites have been evaluated for the National Register of Historic Places because the park does not have the staff or funds to complete evaluations, and few sites or archaeological artifacts are interpreted for visitors.

Catoctin does not have an organized archaeology program or staff archaeologist; instead, the park relies on archaeological support from the National Capital Region Office.

Because the park lacks funding for archaeology work, surveys are only conducted as parts of environmental impact assessments that are mandated when new development projects such as cell-phone towers or other utility corridors are proposed within the park. This has resulted in a haphazard inventory of the park—just 5 percent of the park has been investigated—and little proactive archaeological work. Without a systematic and comprehensive park inventory to identify and document all archaeological resources, an unknown number of sites remain undiscovered, unprotected, and uninterpreted for visitors. Catoctin needs a park-wide archaeological survey, and one is scheduled to begin in 2007.

MUSEUM AND ARCHIVAL COLLECTIONS—SMALL COLLECTION HELPS TEACH VISITORS ABOUT PARK HISTORY

The land encompassed by Catoctin Mountain Park has an unusual and interesting history that includes charcoal production, iron furnace works, liquor manufacture, federal works projects, presidential visits, and more, yet the park's museum collection contains just 1,896 objects. The natural history collection consists of insects, a herbarium including fungi and ferns, and small mammal skulls and skins. Historical items such as WPA- and CCC-era artifacts and archaeological artifacts such as arrowheads comprise the remainder of the museum collections.

Letters, photos, plans, and management

On Owens Creek, this reproduction of a water powered sawmill teaches visitors about the early lumber industry.

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records dating back to the original land acquisition and park development comprise the park's archive and are stored in locked, fire-proof cabinets in a climate-controlled office. These materials have not been formally cataloged because of staff limitations.

A small museum in the park's visitor center displays some objects and teaches visitors about aspects of Catoctin's cultural and natural history. Objects not on display are stored in the visitor center. Though one individual serves as museum curator, this person also has interpretation and law enforcement

duties, which limits the amount of time that can be spent working with the museum collection. In 2003, Catoctin received assistance from the National Capital Region Museum Resource Center in Landover, Maryland, which sorted and cataloged the park's insect collection. The park now has no backlog of museum items to catalog.

Catoctin staff strive to provide proper care for the park's museum collection, but no funds are dedicated to this work. Instead, funding comes from the interpretation budget.

The park's visitor center includes a small museum with exhibits that tell of Catoctin's cultural and natural history.



Catoctin relies on volunteers to provide key services. Boy Scout volunteers recently helped staff build a ramp to improve accessibility at the park.

STEWARDSHIP CAPACITY— ADDITIONAL STAFF AND PROJECT FUNDS NEEDED

Stewardship capacity examines the question of how well equipped national parks are in funding and staffing to protect the parks' cultural and natural resources and provide positive visitor experiences. In most cases, the amount of funding the U.S. Congress allocates to the National Park Service and to individual parks is the most significant factor affecting this issue.

Catoctin's budget declined by about 1.4

percent between fiscal year 2003 and fiscal year 2004 (falling to \$2,302,000). In fiscal year 2005, Catoctin's budget increased by 3.1 percent, and \$2,628,000 has been allocated for fiscal year 2006, though the actual amount the park will receive has not yet been determined.

Inflation, salary increases, rising utility and fuel costs, and service-wide assessments for information technology and uniforms have taken a toll on Catoctin's modestly rising budgets. The park currently employs two fewer permanent staff and about seven fewer temporary staff than it did five years ago. Most cuts

have affected the park's maintenance crew: Five positions have been lost over the past five years because of budget cuts. The park no longer can support a seasonal trail crew, so volunteers and the Youth Conservation Corps now do most of the trail maintenance.

Critical unfilled or unfunded positions at Catoctin include a cultural resources specialist, information technology specialist, law enforcement rangers, maintenance workers, and a facility management specialist. Catoctin also needs someone with the appropriate expertise to perform compliance work and develop the park's geographic information system.

Special funding sources (i.e., cyclic maintenance, challenge cost share, small park initiative, natural resource funding, and cultural resource funding) are usually available for projects throughout the year to augment Catoctin's base funding level, but the amount of these funds can vary significantly from year to year and must be used on specified projects.

So that staff can properly protect the park's cultural and natural resources, Catoctin requires additional project funding. Projects in need of funding include:

- Repair and rehabilitation of the historic buildings in Camp Misty Mount and Camp Greentop;
- Implementation of a 15-year white-tailed deer management plan;
- Seasonal non-native plant control activities; and,
- A park-wide archaeological inventory.

To cope with funding and staffing shortfalls, Catoctin relies on a growing pool of volunteers and partner groups. During fiscal year 2004, volunteers donated 11,706 hours of service to the park, allowing it to sustain its core interpretive program, expand outreach efforts, and establish additional community volunteer programs.

PARK'S NATURAL AND CULTURAL HISTORY EXPLORED THROUGH EDUCATIONAL PROGRAMS

A diverse natural environment with an intriguing human history awaits visitors to Catoctin Mountain Park. To educate visitors about resources and history, the park offers a variety of opportunities. Area schools have access to ranger programs conducted at the park, while specially developed online lesson plans and interactive computer programs help teachers educate students in the classroom. Schools can also borrow an educational traveling trunk that contains items related to the park's history. In 2004, the park presented 21 education programs to 593 students.

On weekends, the park offers whiskey still talks, blacksmith shop demonstrations, wildflower walks, fall color walks, orienteering courses, and programs on African American influences in the Catoctin area. Early mountain industries are important interpretive themes that are prominently featured. The park has a self-guided nature trail—the Charcoal Trail—that includes a series of exhibits and wayside signage to interpret the production of charcoal for the nearby Catoctin Iron Furnace. There is a major exhibit at the site of the Blue Blazes whiskey still, which park staff interpret on certain weekends, and a reproduction of a water powered sawmill on Owens Creek.

In 2004, staff presented 129 interpretive programs to 2,381 park visitors, while 76 off-site outreach programs were presented to 7,128 people. To increase interpretive program offerings, the park has requested funds to support an educational specialist.

Visitors learn about work in a blacksmith shop.



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LAW ENFORCEMENT COMPETES WITH RESOURCE MANAGEMENT AND EDUCATION

The terrorist attacks of September 11, 2001, prompted the National Park Service to review the security measures required to keep America's most treasured places—its national parks, monuments, historical parks, and other sites—safe from attack. According to a statement by Park Service Director Fran Mainella in August 2005, the agency has been diverting \$33 million per year from operating funds to fulfill homeland security needs at parks such as the Statue of Liberty and Mount Rushmore. In spite of this diversion of funds, law enforcement duties and additional security requirements pose a challenge at some parks such as Catoctin and have serious repercussions on park interpretation and resource management.

Because Catoctin is a relatively small park, most rangers have multiple collateral duties along with regular law enforcement duties. Law enforcement duties have increased significantly in the last four years, reducing the amount of time and attention staff can dedicate to interpretation and resource management duties. According to the Visitor and Resource Assessment Program and Law Enforcement Needs Assessment, Catoctin has a shortfall of four commissioned law enforcement positions.

The goal of maintaining a generalist ranger work force is made increasingly difficult by pressures to specialize staff positions in law enforcement, interpretation, and resource management. With no increase in the number of personnel, but with ever-increasing workloads, individual fields of operation are not receiving the full attention they deserve. Catoctin Mountain Park also lacks any operationally funded seasonal ranger positions, which causes an additional burden.

The National Park Service is operating under a policy of "no net loss" for law enforcement positions. Because many of Catoctin's rangers play dual roles—for example, law enforcement coupled with interpretation or law enforcement coupled with resource management—conflicts arise on how best to manage park operations. Park staff view the process of professionalizing resource management positions as important and necessary, but know that moving staff out of law enforcement positions would result in an unallowable net loss. Unfortunately, no staff replacements are available to remedy this dilemma.

In larger national park units, some staff members report that they often feel overwhelmed by conflicting needs to devote increasing amounts of time to all their fields of specialty and simultaneously maintain specialized training and skills.

Current community partners include the Boy Scouts of America Order of the Arrow, the Appalachian Trail Conservancy, Friends of Big Hunting Creek, Catoctin Mountain Tourism Council, Tourism Council of Frederick County, Frederick Community College's Catoctin Center for Regional Studies, the Greater Washington National Parks Fund, the Student Conservation Association, and Northrop Grumman Corporation

In order to properly manage Catoctin Mountain Park, park staff produce and follow a range of management plans. The park has up-to-date fire management, inventory and monitoring, and integrated pest management plans, and will soon complete an Environmental Management Plan and a White-Tailed Deer Management Plan. Staff are also working on a water resources scoping report and expect funding for an archaeological overview in 2007.

Catoctin would benefit from the purchase of adjacent lands that include sensitive habitat or water quality areas, lands with road frontage to allow recreation access, and adjacent lands proposed for commercial uses. Catoctin is authorized under its enabling legislation to purchase lands to better protect existing park resources. National Park Service policy is to purchase only lands that are contiguous to existing park boundaries. In addition, these lands must be purchased only from willing sellers. Envisioned purchases would help protect the aquatic resources and water quality of the Big Hunting Creek and Owens Creek watershed and meet other resource objectives such as viewshed protection, habitat conservation, and trail corridor connections between the 26-mile Catoctin Trail and the 2,158-mile Appalachian Trail, which passes only two miles from Catoctin Mountain Park. Lands in need of further protection comprise approximately 2,860 acres outside existing boundaries.

The cost of acquiring these lands could range between \$15 million and \$30 million, if



Park staff interact with thousands of visitors each year.

the National Park Service made all purchases as fee-simple acquisitions. Sales in the current market usually consist of one or two potential purchases for the park each year, with an annual average outlay of less than \$200,000. Many of these land protection measures—such as riparian buffers, floodplain, and headwaters protection—could be undertaken by state and local governments or through conservation easements to nonprofit land trusts and would significantly reduce National Park Service costs and protection responsibilities.

WHAT YOU CAN DO TO HELP:

- **Support or become a member of groups helping to protect the park:** Greater Washington National Park Fund (www.gwnpf.org), NPCA (www.npca.org/support_npca/), and other regional organizations.
- **Volunteer in the Parks.** Many parks are looking for dedicated people who can lend a helping hand. To learn about opportunities at Catoclin Mountain Park, contact the park volunteer coordinator at 301.663.9388 or visit www.nps.gov/cato.
- **Become an NPCA activist and learn about legislative initiatives affecting parks.** When you join our activist network, you will receive *Park Lines*, a biweekly electronic newsletter with the latest park news and ways you can help. Join by visiting www.npca.org/takeaction.

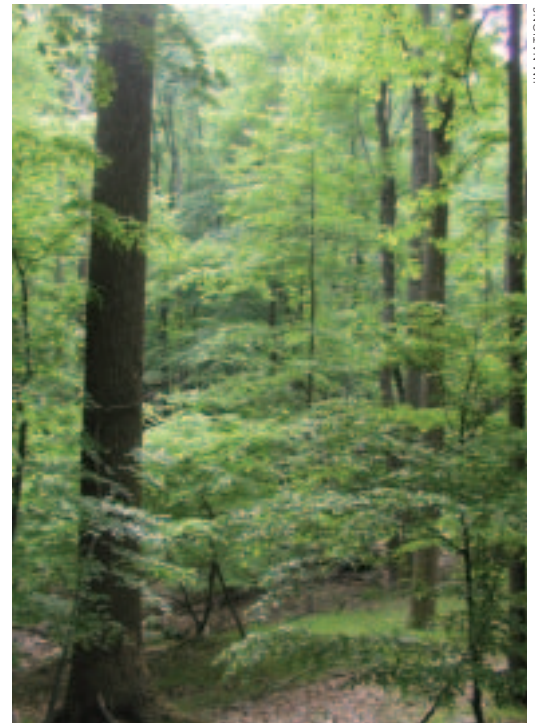


APPENDIX: METHODOLOGY

To determine the condition of known natural and cultural resources at Catoctin Mountain Park and other national parks, the National Parks Conservation Association developed a resource assessment and ratings process. It examines current resource conditions, evaluates the park staff's capacity to fully care for the resources, and forecasts likely conditions over the next ten years. The assessment methodology can be found online at NPCA's Center for State of the Parks® web site (www.npca.org/state-of-the-parks/).

Researchers gather available information from a variety of research, monitoring, and background sources in a number of critical categories. The natural resources rating reflects assessment of more than 120 discrete elements associated with environmental quality, biotic health, and ecosystem integrity. Environmental quality and biotic health measures address air, water, soils, and climatic change conditions as well as their influences and human-related influences on plants and animals. Ecosystems measures address the extent, species composition, and interrelationships of organisms with each other and the physical environment for indicator, representative, or all terrestrial and freshwater communities.

The scores for cultural resources are determined based on the results of indicator questions that reflect the National Park Service's own Cultural Resource Management Guideline and other Park Service resource management policies.



JIM NATIONS

Stewardship capacity refers to the Park Service's ability to protect park resources, and includes discussion of funding and staffing levels, park planning documents, resource education, and external support.

For this report, researchers collected data and prepared a paper that summarized the results. The draft underwent peer review and was also reviewed by staff at Catoctin Mountain Park.

NPCA's Center for State of the Parks represents the first time that such assessments have been undertaken for units of the National Park System. Comments on the program's methods are welcome.

ACKNOWLEDGMENTS

For more information about the **Center for State of the Parks®** and this and other program reports, contact:

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Longfellow National Historic Site (MA)

Mojave National Preserve (CA)

Olympic National Park (WA)

Point Reyes National Seashore (CA)

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Shenandoah National Park (VA)

Saint-Gaudens National Historic Site (NH)

Waterton-Glacier International Peace Park (MT-Alberta)

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