

Great Outdoors America

THE REPORT OF THE
OUTDOOR RESOURCES
REVIEW GROUP



JULY 2009

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Foreword

The Outdoor Resources Review Group reflects an effort by leading conservationists from across the nation who have come together to provide advice on the best ways to preserve America's outdoor resources. In their report, this distinguished group has provided their best recommendations on how the government and Americans everywhere can help preserve and benefit from the Great American Outdoors.

Americans all across the country, of all backgrounds, and of all political views, care deeply about the health of our land and water resources—the wildlife, parks, forests, farms and ranchlands, and historic places that have sustained and enriched us as a people over generations. They have shaped our self-image, they are ingrained in our culture and in our traditions, they have provided us with near boundless opportunities to enjoy the outdoors and participate in health-affirming recreation. They are central to our economy, our health, our quality of life in rural settings and urban communities alike.

We are past due for a serious look at where we stand as a country in achieving our goal of safeguarding these resources. The last time was more than 20 years ago. Today, with a new president and a new administration, we have the opportunity to put our conservation efforts on solid footing for generations to follow.

We hope this report will spark a national dialogue about what these outdoor resources mean to the American people and how we can all ensure they provide and endure for generations to come.



Jeff Bingaman
United States Senator



Lamar Alexander
United States Senator

Preface

In early 2008, Senator Lamar Alexander, joined by Senator Jeff Bingaman, invited conservation and recreation leaders to discuss the status of the country's endeavors to safeguard critical land and water resources and the recreational opportunities associated with them. Land and water conservation has been of long-standing interest to Senator Alexander, who as then-governor of Tennessee chaired the 1987 President's Commission on Americans Outdoors. As Chairman of the Senate Energy and Natural Resources Committee, Senator Bingaman has a major leadership role in conservation issues.

The impetus was clear: the Land and Water Conservation Fund, the primary vehicle for federal and state acquisition of park and recreation lands, had never been adequately funded. Budget deficits and diversion of funds to other purposes left many worried about future levels of support. This occurred even as population and demographic changes have taken place, as anxieties about childhood obesity and public health have emerged, as community livability concerns have moved to the forefront, and as other urgent and unmet needs at the national, state, and local level have surfaced.

The two senators as honorary co-chairmen and a group of 17 leaders in conservation, recreation, and state and local government came together as the Outdoor Resources Review Group (ORRG), a bipartisan, privately sponsored effort to undertake an assessment of priorities, challenges, and opportunities in outdoor resources.


Funding for the review was generously provided by the Laurance S. Rockefeller Fund, American Conservation Association, Richard King Mellon Foundation, and David and Lucile Packard Foundation.

We are grateful to the members of the Outdoor Resources Review Group, indeed to all who shared their time and their views with us. We want to thank Resources for the Future, whose background analyses and hands-on participation informed this inquiry, as well as the National Geographic Society for its involvement and important contributions.

ORRG held a series of meetings and workshops starting in the summer of 2008 to examine major issues and hear from a wide variety of experts and stakeholders on specific topics. Some of the issues that were addressed include hunting and fishing, public lands, urban parks, and conservation finance.

As a group, we have embraced the major themes of this report. We are firm in our belief that it is unquestionably the will of the American people as expressed to their elected representatives that their lands and waters be safeguarded.

Our findings were informed by research carried out by scholars from Resources for the Future (RFF), a nonprofit, nonpartisan research organization based in Washington, D.C. For the Outdoor Resources Review Group, RFF undertook analyses, conducted surveys, and prepared or commissioned background papers



Desert landscape captures the interest of a youthful hiker near Sedona, Arizona. Instilling a love of the natural world in young people from all segments of society must become a national priority—for their own health and the health of the nation.

John Burcham / National Geographic Stock

from leading authorities. These materials and a final research report are available on the RFF website at www.rff.org/ORRG.

ORRG's examination of issues affecting outdoor resources, of necessity, has been selective. Time and resources were limited, and a window of opportunity to influence the

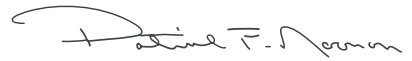
priorities of the new administration proved a useful spur to complete this review. National park issues, though central to the American outdoor experience, are the focus of a separate, independent inquiry by a group of distinguished Americans in anticipation of the 100th anniversary of the park system in 2016.



Henry L. Diamond
ORRG Co-Chair



Gilbert M. Grosvenor
ORRG Co-Chair



Patrick F. Noonan
ORRG Co-Chair

Executive Summary

Senators Lamar Alexander and Jeff Bingaman convened a group of conservation and recreation leaders to discuss the status of land and water resources and the recreational opportunities associated with them in early 2008. The Land and Water Conservation Fund (LWCF) had never been adequately funded, and budget deficits left many worried about future levels of support. This occurred even as demographic changes have occurred, as anxieties about childhood obesity grew, and other unmet needs surfaced. With Senators Alexander and Bingaman as honorary co-chairs, the Outdoor Resources Review Group (ORRG) was formed as a bipartisan, privately sponsored effort to undertake an assessment of priorities, challenges, and opportunities, both urban and rural, in outdoor resources since the last major report in 1987.

Keeping outdoor resources high on the national agenda is critical. Even in a time of daunting challenges, the country's livability today and its prosperity tomorrow depend on it. At stake now, and for future generations, is the health of our people, our economy, our communities, and the lands and waters on which we depend.

Many changes have occurred since the last serious look at outdoor resources in 1987, by the President's Commission on Americans Outdoors: 64 million more Americans with more growth anticipated; 80 percent of Americans now live in urban areas; the population is aging; the demographic profile of those who participate in outdoor activities is evolving; and new preferences in popular

outdoor activities are emerging. Childhood obesity, climate change, and other issues have emerged as concerns nationwide.

The impact and utility of the LWCF, intended as the main funding mechanism for federal and state land acquisition, has declined because of inadequate, undependable appropriations, making it nearly impossible to plan future projects. This is particularly so for the state share and, in turn, for urban areas, even though states and localities are on the front lines in providing parks and recreation opportunities as elements critical to their economic well-being, community livability, public health, and education.

Funding levels are woefully inadequate to meet identified needs for land and water conservation and outdoor recreation: the stateside LWCF backlog for acquisition and related facilities development in 2008 was \$27 billion; federal agencies report a sizable land acquisition backlog; major restoration efforts in Chesapeake Bay, Puget Sound, the Everglades, the Great Lakes, and elsewhere have never received adequate funding; and demand for recreation facilities to meet the needs of a growing population remains significant.

At its peak, in 1977, the LWCF was authorized at \$900 million a year. However, inflation means that the \$900 million authorized in 1977 would be worth only \$253 million today. In order to fund the LWCF fully at the \$900 million level Congress envisioned in 1977, adjusting for inflation, this figure would be \$3.2 billion today.

Families that play together stay together. Outdoor activities fill a vital role in family life, whether a canoeing picnic or a simple nature walk. Yet overall funding for land and water conservation and recreation remains “woefully inadequate.”



Alaska Stock Images / National Geographic Stock

The LWCF is not the only funding stream, however. Numerous federal programs spend significant sums on land and water conservation and outdoor recreation, as do

state and local governments and the private sector. But these programs have many different objectives and are fragmented. They lack a broad-based or coordinated vision to guide

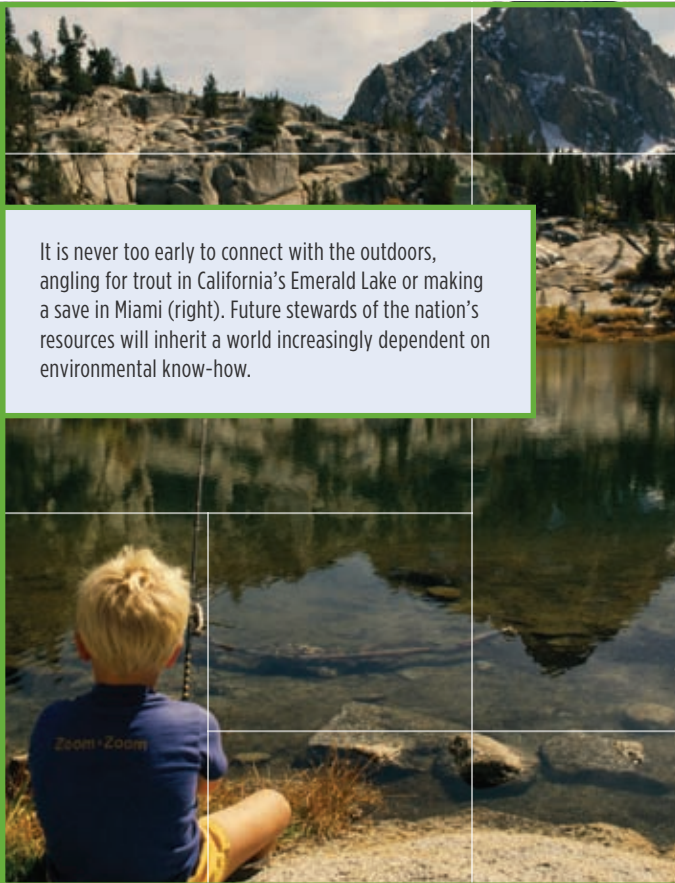
their investments and related activities within the Department of the Interior and across federal, state, and local governments.

New options—and new problems—are emerging, adding to the complexity of conservation efforts today. Cross-cutting public programs—such as the Migratory Bird Conservation Commission—offer models of how Congress and government agencies can work in partnership with states and private groups to further land and water conservation.

New geographic information systems, or geospatial planning tools, put to proper use, also will help overcome fragmentation, coordinate these programs, and facilitate outdoor recreation planning to deliver results more efficiently and effectively.

Larger social concerns—like public health, climate change, and renewable energy—now have a much greater influence on conservation efforts. An alarming increase in childhood obesity and rapidly rising health care costs have become prominent concerns nationwide. Moreover, America's youth are less connected to nature and have fewer opportunities for playing outdoors than past generations. They will benefit greatly from participating more in outdoor activities and educational experiences to improve their health, prepare them to become stewards of the nation's natural resources, inspire them to volunteer their time and energy, and help to ready them for jobs that will increasingly put a premium on environmental know-how.

Private stewardship over the past 20 years has become a major, entrepreneurial force in protecting land and water resources through the use of conservation easements, tax credits, multiple sources of funding, and other



It is never too early to connect with the outdoors, angling for trout in California's Emerald Lake or making a save in Miami (right). Future stewards of the nation's resources will inherit a world increasingly dependent on environmental know-how.

Gordon Wiltsie / National Geographic Stock

measures. This development offers ample opportunities for partnerships among public agencies, land trusts and conservation groups, the recreation industry and other businesses, and owners of working lands—farms, forests, ranches, and grasslands—to advance the outdoor resources agenda.

Landscape- or regional-level conservation is increasingly an effective strategy for safeguarding wildlife and their habitat; treasured landscapes; other lands of national and state significance; and rivers, lakes, and other bodies of water. Geospatial planning tools can make this approach even more effective.

With successful examples of regional land conservation in mind, as well as the need for close-to-home recreation, improved water quality and other benefits, a new nationwide

network of Blueways along rivers and coastal waterways should be established through public-private partnerships among federal, state, and local agencies and private landowners.

Climate change is already affecting parts of the country and damaging wildlife, forests, estuaries, and other outdoor resources and recreation lands, as well as posing challenges for land stewards in adapting their management practices.

The need to develop renewable energy resources promises more conflicts over the nation's public lands, which are managed for multiple purposes and increasingly valued for their scenic and recreational appeal as economic anchors for many western communities. If they are developed on public lands, they may offer a potential source of new, dedicated conservation funding. This will enshrine the sound principle that when public resources are exploited or impaired, a portion of the proceeds will be reinvested in protecting and improving the country's outdoor resources for the benefit of all Americans.

Recommendations

ORRG's research has shown that there are multiple opportunities to bring about lasting change. We offer the following eight recommendations:

1. Congress should permanently dedicate funding for the LWCF at the highest historical authorized level (\$900 million a year) adjusted for inflation—that is, no less than \$3.2 billion annually—with a share guaranteed to the states and, in turn, to urban areas. The ultimate target should be \$5 billion a year by no later than 2015, the

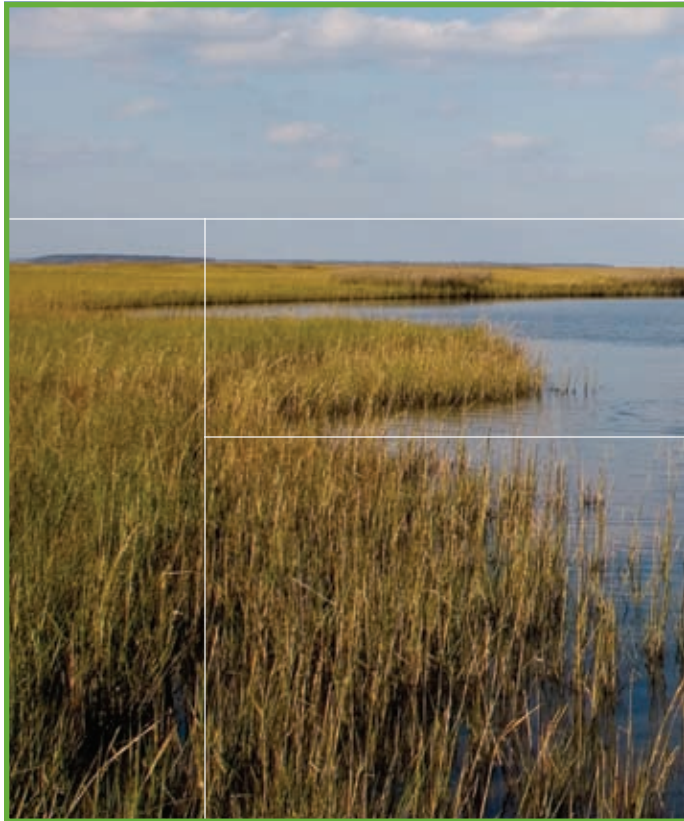
50th anniversary of the Fund, reflecting continued inflation and future population growth. This financial support is needed to protect natural, historical, ecological, cultural, and recreational resources around the country.

2. To overcome fragmentation among multiple programs at multiple levels, geospatial planning tools should be fully utilized to improve the efficiency, effectiveness, and transparency with which the LWCF and other public and private funds are spent.
3. Public and private organizations should aggressively promote recreation and nature education for America's youth so as to engage them early in realizing the lifelong health and other benefits from participating in outdoor activities. The National Park Service, for example, should extend the finding of its pilot program to encourage physical activities in the parks. This program should serve as a model for state and local park systems to promote outdoor activities in close-to-home settings. Youth conservation corps and similar federal and state programs merit expansion.



Raul Touzon / National Geographic Stock

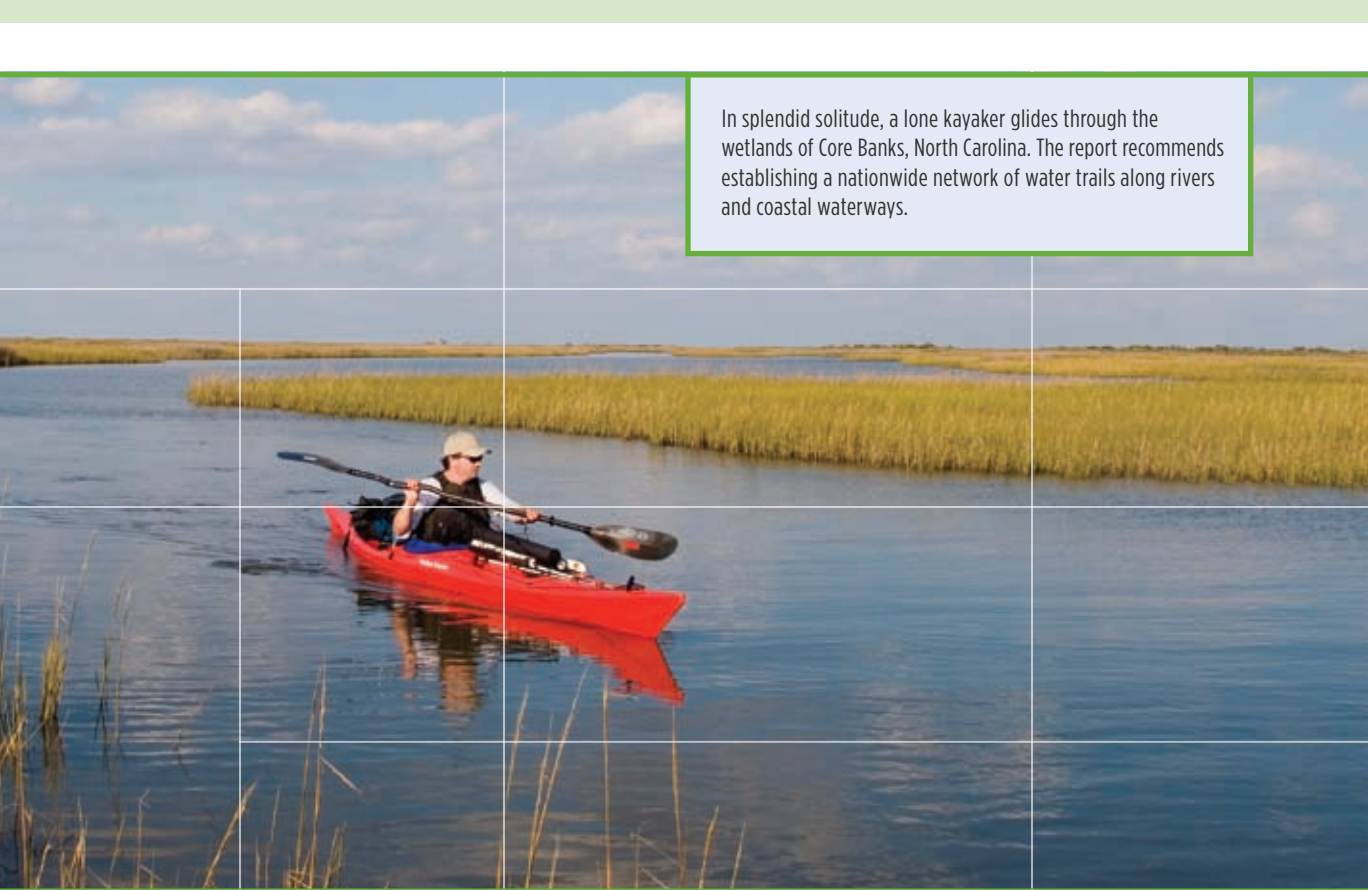
4. Federal, state, and local agencies should continue to promote and support private-sector stewardship through public-private partnerships, joint funding, extended tax benefits for conservation easements, and other incentives.
5. Federal and other public agencies, as the U.S. Forest Service and the Bureau of Land Management are doing, should elevate the priority for regional- or landscape-level conservation in their own initiatives and through partnerships across levels of government, and with land trusts, other nonprofit groups, and private landowners to conserve America's treasured landscapes.
6. A new nationwide network of Blueways and water trails along rivers and coastal waterways should be established through public-private partnerships among federal, state, and local agencies, nonprofits and private landowners.
7. Any national program to reduce greenhouse gases should include funding to adapt resource lands and waters to the ecological impacts of climate change. As climate change increases the pressure on the public lands to develop renewable and conventional energy resources and transmission capacity, funding also will be needed to reconcile growing conflicts over resource use and mitigate impacts where they cannot be avoided in project design.
8. Current structures and funding for outdoor resources are insufficient to meet the needs of a growing population. Other equally important objectives are also compromised by the lack of sufficient, dedicated funding: ensuring that states and communities receive a fair share of support; improving



Skip Brown / National Geographic Stock

planning, cooperation, and coordination within the Department of the Interior and across the federal government; and enabling the country to meet new challenges through public-private partnerships. Given these fiscal realities—and in anticipation that authorization for the LWCF is due to expire in 2015—ORRG recommends the Secretary of the Interior in concert with other members of the administration and Congress address the following areas for further study:

- Elevating the priority and bolstering the capabilities within the Department of the Interior to ensure there is sufficient capacity to make needed conservation and recreation investments and to ensure there is an advocate to promote the value of outdoor resources to community life and their benefits to the economy, public health, youth education, and the like;



In splendid solitude, a lone kayaker glides through the wetlands of Core Banks, North Carolina. The report recommends establishing a nationwide network of water trails along rivers and coastal waterways.

- Using the Migratory Bird Conservation Commission and other cross-cutting federal models, creating an interagency council or other mechanism to ensure coordination and collaboration across agencies of the federal government in recognition that priorities, funding, planning, and other programmatic elements affecting outdoor resources and recreation extend beyond the responsibilities of the Department of the Interior; and
- Meeting the outdoor resource and recreation challenges of the 21st century by creating a new independent conservation trust within the federal establishment. The trust would have dedicated and sustained funding at the level of \$5 billion annually to take into account population growth and inflation in adjusting the high-water mark of authorized spending under the LWCF. One new funding source to consider is a dedicated percentage of royalties or

revenues from developing renewable and conventional energy resources on the Outer Continental Shelf and public lands; developing transmission capacity on public lands would also fall in this category. This new trust could take responsibility, for example, for facilitating geospatial planning; developing allocation formulas for federal, state, and local participation; coordinating interagency programs; fostering public private partnerships; promoting landscape level conservation; and performing other critical functions.

Immediate and bold action is critical to keeping America's outdoor resources high on the national agenda. Next steps could include congressional hearings, a congressional or presidential commission, a White House conference, and a coordinated national initiative led by the Obama administration and Congress.



Mountain bikers journey through the Monongahela National Forest in West Virginia. The journey of the Outdoor Resources Review Group (ORRG) follows and expands on the work of the 1962 Outdoor Recreation Resources Review Commission and the 1987 President's Commission on Americans Outdoors.

What ORRG Found

Keeping outdoor resources high on the national agenda is important. Healthy, productive land and water resources, wildlife habitat, parks and open space, culturally and historically significant landscapes, and available and accessible recreation lands are fundamental to the American way of life and our future prosperity. At stake now and for future generations is the health of our people, our economy, our communities, and the lands and waters on which we depend, in short, the quality of life we enjoy in our cities and towns and rural places. These resources inspire us to be better stewards of this country's natural bounty and to volunteer our time and energy to improve the livability of our communities.

Thanks to government support over many decades and to the foresight of earlier Americans who championed the preservation of land and water resources, our citizens today have an enormous range of opportunities to enjoy the outdoors and participate in recreational activities. In 1962, the Outdoor Recreation Resources Review Commission released its influential report, leading to the creation of the Land and Water Conservation Fund, to systems of national trails and scenic rivers, and to the creation of wilderness areas. In 1987, the President's Commission on Americans Outdoors touted the idea of greenways and provided the impetus for the National Scenic Byways program.

In some more populous states, federal contributions have been augmented, even spurred, by state and local initiatives, bond measures, generous philanthropy, private-sector investments, and the good work of countless individuals and groups. It is unlikely that any other country has the variety of outdoor resources and recreational lands enjoyed by Americans; it is part of our national identity, our heritage, and a source of pride. This progress is worth celebrating.

Each generation of Americans must renew the priority for safeguarding the country's natural resources on which all human activities depend if we are to leave the lands and waters healthy



A campfire takes the chill off near Bar Harbor, Maine. Outdoor resources and recreational lands abound in all 50 states. The challenge is to safeguard those resources now and in the future.

Tim Laman / National Geographic Stock

and productive. The late Jack Lorenz, who led the Izaak Walton League, put it this way: “We must leave our woods, waters and wildlife better than we found them, and we must dedicate ourselves to inspiring others to do the same.” Each generation of Americans has to rediscover this truth and ensure that what is passed on to future generations can meet their needs.

Substantial Changes since 1987

Since the last serious look at national outdoor resources policy, in 1987, by the President’s Commission on Americans Outdoors, a great deal has changed. Of particular note are changes in the country’s demographic makeup, participation in outdoor activities, the challenges we face as a country, and the opportunities to address them.

Over the past two decades, our population grew by 64 million people, up more than 25 percent, to 306 million people today. By 2040, according to the Census Bureau, that number will jump by nearly 100 million. Today, about 80 percent of Americans live in urban areas, and we are developing land at a pace that exceeds the rate of population growth. Between 1980 and 2000, the urban and built-up land area of the United States grew on average 2.9 percent a year while the population rose by only 1.2 percent annually.

Our population is aging and more retirees are anticipated. In 2000, the percentage of population that was 65 and older was 12.4 percent; by 2030, the Census Bureau projects that it will reach nearly 20 percent. The nation’s ethnic mix also is evolving. In 2000, the percentage of the population that was non-Hispanic white was just shy of

70 percent. By 2030, the Census projects, this will drop to about 58 percent.

The use of outdoor resources is changing, too. More women are participating in outdoor activities than in the past. Some traditional pastimes that require licenses—hunting and fishing, for example—appear to have declined over the past two decades, but some of these activities remain popular, especially close to home. Nature-based activities, particularly viewing, studying, and photographing birds and wildlife, have grown in popularity. Mountain climbing, backpacking, and rock climbing, among others, have also emerged as popular pastimes. Other popular outdoor activities include picnicking, hiking, team sports, tennis, and bicycling.

Take the recent period from 2000 to 2007: individual participation in one or more outdoor activities grew by more than 4 percent while the number of days of participation jumped 25 percent. Among those activities seeing



Life’s a beach for a young Hispanic family. The nation’s ethnic mix has changed rapidly in the past 20 years. One in seven Americans is now Hispanic, some 15 percent of the population.

increases are boating, kayaking, driving off-road vehicles, and snowboarding.

Recreational planners and public officials are still analyzing these trends and the implications for the supply of and demand for outdoor resources. And yet, it appears the development of outdoor recreation facilities has not kept pace with population growth, demographic changes, and participation rates.

At the same time, the country is confronting daunting challenges: Conflicts overseas have commanded substantial resources. The economic crisis has affected nearly every American household and institution. Health concerns such as obesity in children are receiving overdue attention. Nonpoint pollution from sources dispersed across the landscape continues taking a toll on water quality and aquatic life, and, in urban areas, water runoff from storms overwhelms sewer systems and water treatment facilities. A warming climate is even now beginning to stress wildlife, fisheries, forests, surface waters, and other natural resources.

Americans remain an optimistic people, and opportunities to tackle these challenges abound. Hunters and anglers, through fees and excise taxes, have been contributing to wildlife conservation for more than 70 years. Over the past two or three decades, new financial partners have established themselves in the outdoor resources marketplace. A robust, entrepreneurial nonprofit land conservation movement has made tangible differences. Sizable land transfers are being recorded as, for example, timber companies dispose of large holdings. A healthy recreation industry is keenly aware that its economic viability is tied to the availability and accessibility of quality land and water resources for Americans to enjoy.



Fall color frames a woman casting on the North Fork of the swift Flathead River in Montana. Recent research shows that more women than ever before are learning outdoor recreational skills and participating in outdoor activities.

Cameron Lawson / National Geographic Stock

A new president and his administration have signaled a priority for children's health and education, for protecting treasured landscapes, for developing renewable energy sources and bringing electricity from them to centers of population, for renewing the nation's commitment to urban vitality—and for jobs above all, and green jobs at that.

Every reason thus exists to take a fresh and timely look at outdoor resources policy if the country is to meet the needs and challenges of the next decade and beyond. Leadership and funding will be needed to achieve this ambitious agenda. Equally important is ensuring that money is spent wisely, both by existing programs and by new ones.

The Maroon Bells in Colorado stand as towering symbols of our nation's outdoor resources. Federal funding has been central to resource protection and expansion over the years, but a serious funding gap has developed that must be closed.



Disparate Federal Funding Sources

Over time, the LWCF has declined in significance and utility. It had been intended since the mid-1960s as the primary source of funds to support resource conservation and outdoor recreation. In effect, it has become an intermittent source of funding because of inadequate, undependable appropriations, which makes it nearly impossible to plan future projects.

An outgrowth of the 1962 Outdoor Recreation Resources Review Commission, the LWCF was created in 1965, intended to be the primary vehicle to fund land acquisition for conservation and recreation by four federal land management agencies: the Bureau of Land Management, Fish and Wildlife Service, Forest Service, and National Park Service. Through a state matching grant program, allocated by a formula based primarily on population, the LWCF was also intended as a source of support for state and local investments in parks, recreation lands, and related facilities.

Funding originally came from the sale of federal properties, motorboat fuel taxes, and recreation fees on federal lands. The \$100 million fund from these sources, however, proved far from adequate for its ambitious mission, and, over the next few decades, funding levels increased: revenues from leasing of outer continental oil and gas reserves were tapped. In 2006, Congress permanently dedicated 12.5 percent of revenues from oil and natural gas lease sales under the Gulf of Mexico Energy Security Act to the stateside portion of the LWCF. Although

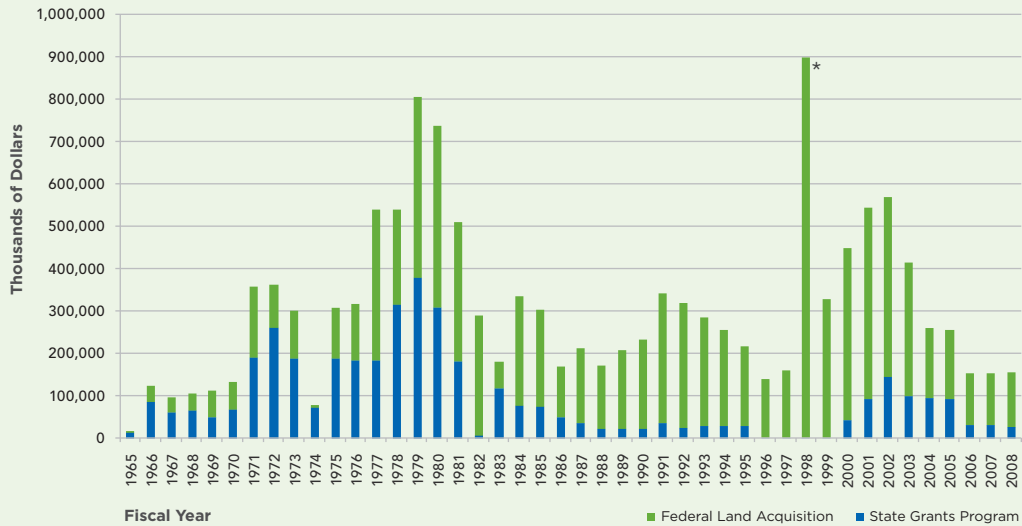
the expected disbursements are likely to be modest, approximately \$22 million through 2017, they represent a new foundation for a dedicated source of funds for land and water conservation.

Since its inception, more than 41,000 grants have been made to all 50 states and other U.S. jurisdictions for planning, land acquisition, and development of land resources. And more than seven million acres of new parks and recreational lands have been added to the American recreation estate and thousands more acres protected. Statutory authority for the Fund expires in 2015.

The LWCF was authorized at \$900 million a year at its height, in 1977. Since then, the price for resource lands has escalated. U.S. population has grown: in 1977, it stood at 220 million; if the LWCF had been fully funded, that would have amounted to just over \$4 per person. Since then, the population has increased by 40 percent; with inflation that means that the \$900 million authorized for the LWCF in 1977 would be worth only \$253 million today, the equivalent of less than \$1 per person in 2008 dollars. In order to fund the LWCF fully at the level Congress envisioned, adjusting for inflation, this number would be \$3.2 billion today.

But LWCF appropriations have fallen well short of the authorized level. Beginning in 2000, a portion of LWCF monies was diverted to land maintenance needs of the

LWCF Appropriations: 1965–2008



Over the lifetime of the Fund, LWCF appropriations have fallen well short of the authorized level, and their uneven nature hinders the ability of federal and state agencies to plan for investments in outdoor resources. In particular, money for the stateside program has dwindled—the average annual appropriation since FY1987 is a mere \$40 million. (Note that the appropriations shown above are in current year dollars; that is, they are not adjusted for inflation.)

*FY1998 appropriations include special earmarked funding of more than \$600 million to acquire Headwaters Forest in California and New World Mine outside Yellowstone National Park.

four federal land management agencies, historic preservation, state and private forestry programs, and endangered species grants. The fiscal year 2008 appropriation was just over \$255 million, of which only about \$155 million went to federal land acquisition and the stateside grants program. The stateside share has been especially shortchanged by insufficient appropriations. The gap between what cumulatively has been deposited into the Fund and what, in fact, has been appropriated by Congress over the years for its intended purposes is more than \$16 billion.

Funding levels are woefully inadequate to meet identified needs for land and water conservation and outdoor recreation: the stateside LWCF backlog for acquisition and related facilities development in 2008 was \$27 billion; federal agencies report a sizable land acquisition backlog; major restoration efforts in Chesapeake Bay, Puget Sound, the Everglades, the Great Lakes, and elsewhere have never received

adequate funding; and demand for recreation facilities to meet the needs of a growing population remains significant.

Adequate and dedicated funding remains an objective for the conservation community and has become the aim of a new coalition of more than 50 groups, whose call to action “Conserving America’s Landscapes” in early 2009 laid out in compelling terms the benefits of full funding. Nonetheless, the appropriations history makes clear that competing national priorities could spell tough going in the appropriations process.

Other Federal Funding

In fiscal year 2008, spending exceeded \$6 billion by more than 30 federal programs that contribute to protecting land and water resources or to expanding recreation opportunities, according to RFF’s research.

Among them: Department of Transportation initiatives such as the Recreational Trails Program and portions of the Transportation Enhancement Program; the Conservation and Wetlands Reserve Programs and the Forest Legacy Program administered by the Department of Agriculture; and the Coastal and Estuarine Land Conservation Program managed by the National Oceanic and Atmospheric Administration.

Other federal programs also contribute to the protection of outdoor resources. The Environmental Protection Agency in partnership with state agencies funds numerous water quality improvement efforts; the U.S. Geological Survey monitors the quality and quantity of the nation's waters; Bureau of Reclamation projects provide water quality and recreation benefits. By the authority of the Federal Land Transaction Facilitation Act, the Bureau of Land Management has generated \$100 million exclusively for land conservation through the sale of public lands deemed eligible for disposal. This "land for land" program helps federal agencies acquire critically important tracts of private land for outdoor recreation and public access. The Department of Defense invests in buffer zones around military installations. The U.S. Army Corps of Engineers manages 12 million acres, especially water-based recreation areas, more than three-fourths of which are within 50 miles of urban areas.

Some programs supporting wildlife conservation, public access, boating, hunting, and fishing activities, wetlands restoration, and related purposes receive funding through excise taxes on selected equipment or products under the principle that users pay/users benefit: the Migratory Bird Hunting and Conservation Stamp Act of 1934, popularly called the Duck Stamp Act; the Pittman-Robertson Wildlife Restoration Act of 1937, which created the Wildlife Restoration Trust

Fund; and the 1950 Dingell-Johnson Act, augmented in 1984 by the Sport Fish Restoration and Boating Trust Fund.

Although each of these programs is important in its own right, there are limits to many of them. They address a variety of different purposes aside from providing or protecting outdoor resources. They are fragmented and uncoordinated. For example, about a third of the more than \$6 billion is spent by the Department of Agriculture's Conservation Reserve Program, which leases land for a specific period of time—that is, the land is not permanently protected. Public access for hunting or fishing or other recreational pursuits is not a primary objective, and landowner liability is a major stumbling block in some states. Transportation enhancement programs that produce bike or hiking trails, however worthwhile, are ancillary to road building and not intended primarily to advance community open space or recreation goals.



A budding birder sights her quarry. Important support for wildlife conservation comes from the outdoor-using public through excise taxes and the sale of federal "duck stamps."

An empty boardwalk beckons in a New Jersey wildlife refuge mere miles from New York City. State and local governments face a bumpy financial road as they struggle to maintain funding levels for conservation and recreation.



The Gap in State and Local Funding

Though federal programs continue to provide critical funding, in recent years they have been surpassed by state spending. Over at least the past decade, states have been carrying a good deal of the responsibility for land and water conservation and outdoor recreation. And yet, today nearly all states are facing deficits. As part of its research, RFF surveyed state park officials, urban park officials, and park conservancies and foundations. The state and local sectors also received attention in workshops devoted to their issues, and their findings underscored funding shortfalls.

Although state resources and expenditures vary widely, all told states manage more than 6,600 park sites covering 14 million acres, providing a range of recreation and other outdoor activities, often in reasonably accessible settings. State acreage in 2008 was more than a third larger than in 1978. In 2007, there were 730 million visits to state parks, more than two and a half times the number of people who visited national parks, which have maintained a steady level of visitation.

The 2008 report on stateside needs under the LWCF reported a shortfall stateside of \$27 billion for acquisition and facilities development. ORRG heard repeatedly and emphatically that protection of resources through acquisition, however important, is not the top priority for state agencies. Their greatest need is funding for capital projects, including facilities and landscape restoration.

Some states have turned to ballot measures for funding. In 2008, voters passed nearly three-fourths of 90 conservation finance measures, authorizing \$8.4 billion in new state-level funding for land and water conservation. Acquisition needs differ from place to place, of course: some efforts have targeted small parcels or inholdings, whereas elsewhere larger or vulnerable landscapes are the priority. Still elsewhere, ballot measures targeting water quality or water resources more generally draw voter support. Although RFF's analysis reveals that many of the measures and the dollars were concentrated in a handful of states, nonetheless, coming at a time when the nation's economic distress was becoming increasingly evident, there is perhaps no stronger affirmation of the enduring value Americans put on outdoor resources.

Some states have funded conservation through statewide programs that yield a dedicated stream of revenues for land and water resources. A number of states offer income tax credit programs for land conservation easements. Although they help protect wildlife habitat and open space, they do not necessarily offer opportunities for hunting, fishing, or other traditional outdoor recreation pastimes.

Local Funding

Ballot measures also have proved a popular source of funding at the local level. According

An urban oasis, Boston's Public Garden has soothed city dwellers for 150 years. Urban areas, where four out of five Americans live, confront serious outdoors-funding challenges, as overstretched budgets are squeezed ever harder.



to Land Vote, a data base established by the Trust for Public Land and the Land Trust Alliance, since 1996 more than 95 percent of nearly 1,500 conservation funding measures have passed at the county, municipal, or district level, contributing more than \$25 billion dollars to conservation. Some local measures have received a boost in states that provide matching state funds.

Like their state-level counterparts, the highest priority for local park officials is funding for capital projects. Urban areas, where about 80 percent of Americans live, are stressed in funding facility and landscape restoration and related improvements that directly benefit community residents. They also face shortfalls for funding operations and maintenance and recreational programs that reach youth. With greater frequency, parks departments reportedly have been postponing needed maintenance, laying off staff, some even closing while hoping to fill the gap through volunteers. Conditions have deteriorated and access to nature, recreation, and outdoor play spaces

has been shut off, thereby diminishing overall community livability. Local jobs are being shed, after-school programs benefiting at-risk youth and financially disadvantaged families are suffering, and opportunities to promote health, fitness, and education are being lost.

No dedicated source of federal funds exists to meet local needs. The federal Urban Park and Recreation Recovery Program, administered since 1978 by the National Park Service, aimed to help rehabilitate critically needed recreation facilities in more than 300 distressed localities but has not been funded in many years. When the Department of Housing and Urban Development was formed in the 1960s, there was an Open Space Program for cities that recognized the importance of parks and recreation in community life, but that program no longer exists.

Park officials typically lack clout as city budgets are allocated to meet competing local priorities for public safety, water systems, and roads. Advocates for local parks and recreation have not yet marshaled the arguments and documented the benefits to grab the attention of public officials who set priorities and allocate budgets. Some parks advocates are now calling on local governments to rethink the role of parks in urban affairs, not just as open space or recreation sites, but as green infrastructure that provides a cost-effective means to help meet multiple public goals. These include reducing storm water runoff from city streets, improving health, accommodating bicycles, attracting tourists, creating jobs, and fostering community revitalization.

In sum, though federal, state, and local funding for conservation may be significant, programs address many different goals besides conservation, they are not coordinated, and they do not always address conservation priorities.

State Programs Use a Variety of Funding Sources to Support Conservation

Great Outdoors Colorado

The last decades of the 20th century brought Colorado a booming population, a growing tourist industry, and a pressing challenge: how to maintain the state's quality of outdoor life for generations to come. Coloradans rose to the challenge at the ballot box, voting in 1992 to create the Great Outdoors Colorado Trust Fund, or GOCO, which dedicates a portion of state lottery proceeds to conservation and outdoor recreation projects. This fund provides grants to projects that preserve, protect, and enhance Colorado's wildlife, parks, rivers, trails, and open space heritage.

All Colorado lottery proceeds—about \$122 million in 2008—are split among Colorado state parks, the Conservation Trust Fund, school construction, and the Great Outdoors Colorado (GOCO) Trust Fund, which received \$53 million of the \$122 million total. Conservation Trust Funds are administered by the Department of Local Affairs and distributed to local governments on a per capita basis to fund parks, recreation, and open space; for acquisition of new conservation sites; or for capital improvements for public recreation facilities. The portion of the funds that state parks receive directly is used to improve reservoirs and recreational facilities, and for land acquisition and trail maintenance.

The GOCO Trust Fund's board allocates grants equally, over time, to four areas: funding through the Colorado Division of Wildlife to acquire and enhance habitat, nongame species preservation, wildlife watching, and youth education; outdoor recreation funding through Colorado State Parks for trails, enhancing existing

and constructing new facilities, buying land for new state parks and to provide buffers around existing parks, and youth education; competitive open space grants to local governments, land trusts, state parks, and the Division of Wildlife for fee title and conservation easement purchases; and competitive matching grants to local governments to acquire, develop, or manage open lands and parks.

Since it awarded its first grants in 1994, through 2008, GOCO has committed \$650 million to more than 3,000 projects throughout the state, often working through public-private partnerships and leveraging public and private funds and landowner donations. Achievements include:

- permanent protection of more than 850,000 acres of open space, including lands along river corridors and in mountain valleys, wildlife habitat, agricultural lands, lands in the hearts of cities, lands



Colorado found the answer to its outdoors needs with a state lottery. Proceeds go to parks, the Conservation Trust Fund, and GOCO—the Great Outdoors Colorado Trust Fund. Wildflowers near Telluride bloom contentedly.

George F. Mobley / National Geographic Stock



Florida's sandhill cranes are endangered, just one reason why the Florida Forever Act is essential to the state's conservation and recreation initiatives. Since its inception in 2001, Florida Forever has protected 627,500 acres of land.

Klaus Nigge / National Geographic Stock

that separate communities, and lands that buffer state and local parks from encroaching development; and

- creation of nearly 1,050 community parks and outdoor recreation areas, including skating parks, ball fields, and playgrounds.

Through one project alone in Routt and Moffat Counties in northwest Colorado, GOCO grants have helped with the following:

- conservation of more than 6,500 acres of land along six miles of the Yampa and Elk Rivers;
- acquisition of or easements on more than 3,000 acres on Emerald Mountain and along eight miles of the Yampa River in the area of Steamboat Springs;
- creation of innovative recreation leases with private property owners to establish managed river access on eight Colorado state park sites, extending from west Routt County across private and federal lands to Dinosaur National Monument in western Moffat County;
- creation of the Yampa State Park headquarters and campground and

enhanced recreation facilities at Elkhead State Park; and

- establishment of three new state wildlife areas.

Florida Forever

The Florida Forever Act, passed in 2001, provides financing for land acquisition to protect environmentally significant lands, protect ground and surface waters, provide high-quality recreational opportunities in urban areas, and help local governments implement their comprehensive plans. The program is funded by \$300 million per year of "Florida Forever" bonds, which are backed by revenues from a document stamp tax. In 2008, a new law extended the program to 2020, increasing bonding authority from \$3 billion to \$5.3 billion.

Florida Forever is administered by the Department of Environmental Protection with funds divided among the Division of State Lands, Water Management Districts, Department of Community Affairs' Communities Trust Program, and other programs. The Communities Trust Program provides land acquisition grants to local governments and eligible nonprofit groups for parks, open space, and greenways, and natural resource protection needs identified in local comprehensive plans. Three-quarters of a project's funding must be matched on a 1:1 basis by other funding sources. Funding for the Division of State Lands is used for land acquisition and capital projects. An annual priority list is developed by the division and approved by the Acquisition and Restoration Council, an 11-member advisory group. Each of five Water Management Districts receives an allocation based on a formula in the act. The money may be spent on capital projects and land acquisition, with half the funding over the life of the program to be used for land acquisition. Florida Forever has protected 627,500 acres of land.

Maryland Open Space Program

The Outdoor Recreation Land Loan Act of 1969 created a 0.5 percent real estate transfer tax to serve as a dedicated funding source for conservation and outdoor recreation. Funds are allocated to Program Open Space, the Agricultural Land Preservation Foundation, Rural Legacy Program, and Heritage Conservation Fund. Administered by the Maryland Department of Natural Resources, the Open Space Program funds outdoor recreation and open space acquisition for public use at the state level, and distributes grants to local governments for land acquisition and park development. To maximize benefits, the state targets the most ecologically important parklands, forests, and wildlife habitats threatened by development. Appropriations for the open space program in FY2008 were more than \$160 million, but, due to decreased real estate transfer tax revenues, this number dropped to about \$70 million in FY2009.

Accomplishments include 335,000 acres preserved, more than 5,000 grants to local governments, as well as close to 5,000 park, conservation area, and greenway projects.

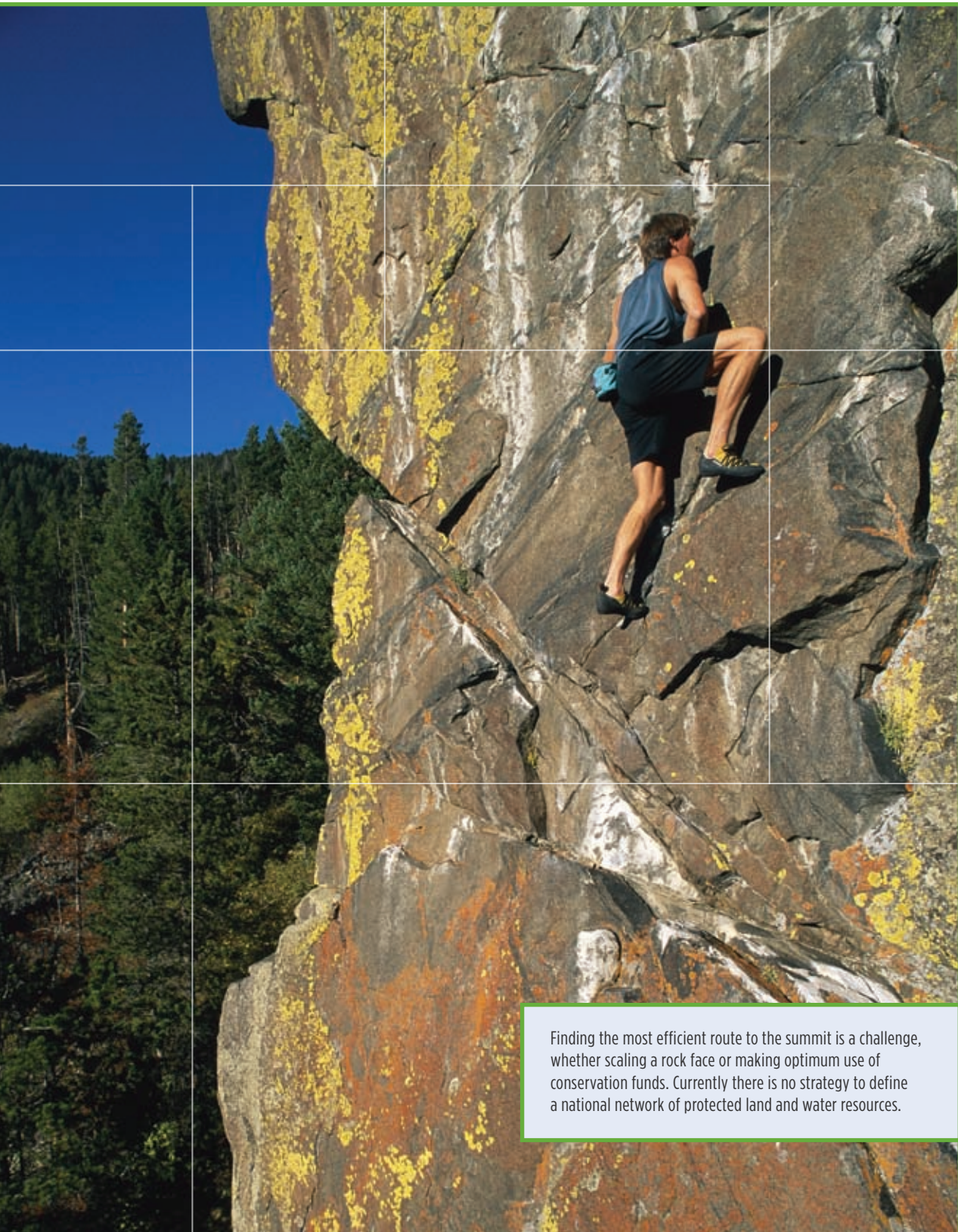
The New York Environmental Protection Fund

The Environmental Protection Fund (EPF) was created in 1993 by the New York State Legislature to provide funding for the restoration of New York's natural environments. The fund is financed primarily by real estate transfer tax revenues, with money allocated by the legislature through the annual appropriations process. It has grown from an annual budget of \$31 million in 1994 to \$255 million in FY 2008–2009.

The EPF is divided into three primary accounts: open space; solid waste; and parks, recreation and historic preservation. Funds are used primarily for capital projects to leverage contributions from local government, nonprofit groups, corporations, and others. Over the lifetime of the program, \$739 million has been spent on open space, 55 percent of which went for land acquisition. Of the \$491 million spent on parks and recreation, 28 percent went to local parks and 14 percent to state land stewardship. In recent years, the governor's office has borrowed EPF money to cover general fund shortfalls, issuing "IOUs" that can be redeemed as projects become ready for funding.



New Yorkers benefit from the state's Environmental Protection Fund, which underwrites restoration of natural environments, including half a billion dollars for parks and recreation.



Finding the most efficient route to the summit is a challenge, whether scaling a rock face or making optimum use of conservation funds. Currently there is no strategy to define a national network of protected land and water resources.

Overcoming Roadblocks to Effectiveness and Efficiency

Conservation dollars often do not deliver their full benefit because of a lack of coordination and fragmented planning, but new coordinating mechanisms and new geospatial planning tools can help overcome these hurdles.

Though many consider conservation projects a plus no matter where they occur, haphazard conservation can be as problematic as haphazard development. Multiple public programs with money from multiple sources tend to yield fragmented results and raise a fundamental question: have these funds been effectively and efficiently spent?

Ideally, investments in land and water conservation might be guided by an overarching vision or strategy that helps set priorities and commits resources to these priorities. Such a strategy would identify lands of national and state significance not yet protected. It would seek to leverage and facilitate investments by states and localities, land trusts, private landowners, and others.

But the country has no such road map that spells out what a completed network of protected land and water resources might look like, let alone consensus estimates of what that might cost. Currently, the Doris Duke Charitable Foundation, in cooperation with state fish and wildlife agencies, is attempting to define what a nationwide network of wildlife habitat might look like, as one element of such a vision,

and what it would take in time and money to implement it.

As important as each of the federal programs noted in a previous chapter may be, they lack coordinated focus to achieve land and water conservation benefits or increase recreation opportunities. No agency of the federal government has the broad mandate or perspective, let alone sufficient staff and other resources or the incentive, to take on the full range of functions needed to protect and provide outdoor resources and relate these to other national priorities in health, education, job creation, community livability, and the like. The LWCF is buried within the National Park Service bureaucracy. Parks



Like these visitors to Yosemite, Americans treasure the outdoors. In an increasingly complex society, it will take smart leadership and innovative technology to manage the future.

Tim Fitzharris / National Geographic Stock

and recreation facilities in states and urban areas, perhaps understandably, have not been the Park Service's top priority. Without explicit recognition in open space programs, such important issues as capital needs in urban parks or accessibility to close-to-home recreation, for example, may receive only marginal attention.

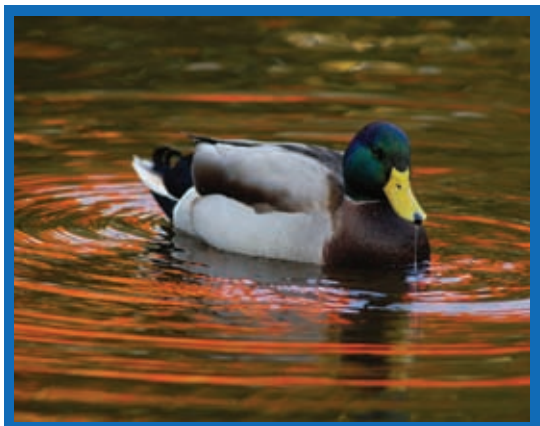
Though plentiful at all levels of government, planning processes are not integrated in any meaningful fashion and thus have not been adequate to facilitate setting priorities and ensuring effective and efficient expenditure of funds. Despite numerous planning requirements associated with public programs for parks, wildlife, forestry, air and water quality, and more, an overall picture of conditions and trends in land and water conservation remains elusive. Identifying and targeting resources worthy of protection is near impossible. Crafting strategies to address these priorities is difficult. The quality of plans differs markedly from state to state. And they fail to capture the full range of outdoor resources or tie in the work of public and private organizations engaged in land and water conservation.

The problem is not that planning tools are not available but rather the lack of incentive to use them and the lack of resources to prepare them. The State Comprehensive Outdoor Recreation Plan, required for eligibility to receive LWCF monies, is supposed to assess needs and priorities. Some states take the obligation seriously and update their plans regularly to reflect changing demographics, new preferences for recreation and outdoor activities, or other strategic considerations. Others, seeing scant motivation for planning without assurance that stateside LWCF funding will be available, appear to put little effort into updating their plans. Plans for their own sake are clearly not worth the trouble. And typically

the plans are incomplete in capturing the full range of state and local recreation lands and waters.

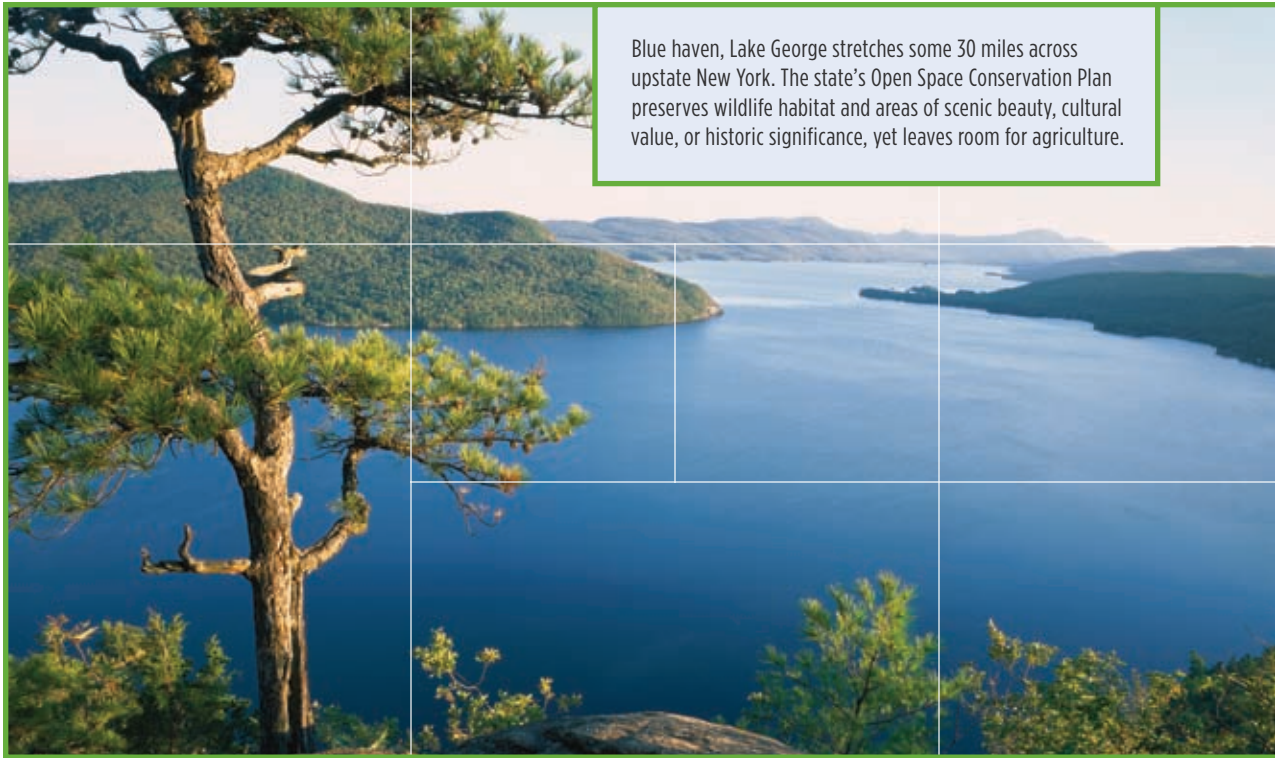
Another example is the State Wildlife Action Plan, which is required to tap a grant program administered by the U.S. Fish and Wildlife Service. These state plans identify species at risk and needed conservation actions. These, too, differ in quality from state to state. No one document in many states captures all outdoor resources. New York's wildlife action plan, for example, does not factor in 400,000 acres of state parklands. That state's Open Space plan may come closest to the objective: it is revised every three years through statewide hearings that document urban, suburban, and rural places where important values—watersheds or wildlife corridors, for instance—merit protection.

Consequently, although significant amounts of money are spent on planning required by government programs, the payoff in protecting



A duck's gentle ripples reflect autumn's hues. The Migratory Bird Conservation Commission has been successfully working to acquire land for national wildlife refuges since 1929.

Darlyne A. Murawski / National Geographic Stock



Blue haven, Lake George stretches some 30 miles across upstate New York. The state's Open Space Conservation Plan preserves wildlife habitat and areas of scenic beauty, cultural value, or historic significance, yet leaves room for agriculture.

Carr Clifton / National Geographic Stock

or expanding outdoor resources is ad hoc at best. A lot of information about conditions or trends may be available, but it is not pulled together or in many places organized in a way that facilitates access or informs decisionmaking. Nor have these plans for the most part been sufficiently compelling in marshaling the political support to implement them other than in piecemeal fashion. They typically fall short in demonstrating the credibility and political salience that would come from drawing the tight connection between outdoor resources and recreation, on the one hand, and other priorities, from job creation to natural resource productivity to community livability, on the other.

It need not be this way. Other cross-cutting public programs—the Migratory Bird Conservation Commission to cite one example—offer models for how Congress and government agencies can work together and in partnership with states and private groups to further land and water conservation. This

Commission, established in 1929, is chaired by the Secretary of the Interior. The Secretary of Agriculture and Administrator of the Environmental Protection Agency also serve on the Commission. So do two senators and two representatives, providing congressional input and support. This structure offers an example of cooperation and collaboration not only across federal agencies, but also with states and private groups to acquire land for national wildlife refuges. Federal funding is dedicated, chiefly from the Duck Stamp Act and excise taxes on certain hunting equipment, and can be leveraged by state and private contributions.

Another important means of facilitating cooperation and coordination in making decisions and investments can be found in new planning technologies. Among the most important are geospatial tools, software systems developed in the mid-1960s as a technical aid for managing forest and water resources. Geographic information systems, or GIS, enable planners to assemble and

Waterfront views enhance the pleasure of a ride for a pair of city cyclists. Geographic information systems (GIS) technologies enable planners to confidently integrate trail development with the landscape, urban or rural.



array in layers vast amounts of data that can be analyzed and weighted, overlay these layers with demographic and other thematic information, map existing assets, and identify vulnerable resources, as well as the best places for conservation, recreation, and development. In user-friendly format, GIS data can help build public support for conservation strategies and provide public officials and citizens alike transparency in tracking and monitoring conservation investments.

The Department of the Interior is beginning to develop the capabilities to apply geo-

spatial analyses in natural resource planning, as are states and nonprofit groups such as the National Geographic Society, NatureServe, the Environmental Systems Research Institute, the National Recreation and Park Association, and others.

Many states are beginning to use GIS technologies to map land and water resources. North Carolina is using GIS to pull together all the available open space plans, those by counties and other public entities and those by nonprofit land trusts, providing ready public access and a set of land and water conservation priorities at every scale, from neighborhood to state level.

Another instructive example is Maryland's Greenprint Initiative. The state is applying geospatial technologies to map ecologically important but vulnerable areas before they are lost to development, to create transparent criteria to guide state investments in protecting resources, and to facilitate partnerships with local agencies, land trusts, and other nonprofit groups. Though state officials see the potential to have all state agencies and their partners working off the same information base, they caution that achieving this has called for high-level leadership and involved considerable effort to build trust and capabilities across government agencies. A substantial effort, including funding, is needed, they say, to ensure that the right data and other relevant information are collected, quality controlled, and presented consistently from place to place. It is equally important to ensure that the information resulting from these new technologies is available and useful to policymakers and citizens if it is to be applied effectively and efficiently to realize the full benefits for conservation.

GIS Technology Can Further Conservation Planning

Today, within reach for outdoors America is an important new tool: a unified, publicly accessible national digital map supported by the modern technology of geographic information systems (GIS). The foundation for this effort has been laid through pioneering work by a variety of federal agencies led by the U.S. Geological Survey, forward-thinking state governments such as those of North Carolina and Maryland, companies such as the Environmental Systems Research Institute (ESRI), and nonprofit organizations like the National Geographic Society. This work has brought together wide-ranging environmental data sets organized around goals of conservation, recreation, education, and resource planning.

GIS is being used today by nearly all federal and state agencies to manage comprehensive natural resource inventories. GIS systems are based on layers of data on soils, geology, vegetation, land cover, water resources, and the like, as well as census and demographic data, and more. Though many systematic inventories have been carried out, there are areas that are not complete, including wildlife habitats, up-to-date topographic maps, up-to-date imagery, forest cover, land records, geology, land cover, and water resources.

A national outdoor resources GIS can be built with current technology and data, relying on existing software, hardware, and networks, integrated by a lead organization that sets common standards. Many of the pieces already exist. Once launched in a basic form, it can then be enhanced over time. Guarantees of privacy, confidentiality, protection of proprietary financial data, and similar concerns can be built in at every level.

A GIS system like this would not only aid public land managers, but also benefit citizens and educators. Outdoor recreation plans could be viewed, using simplified tools to convey their impacts. Citizens could also monitor the implementation of plans once they are approved. The effort might usefully start on a pilot basis with certain states or regions, building upon existing foundations, and enlisting recreation planning organizations, private conservation groups, academic experts, and key federal agencies. The U.S. Geological Survey and the National Geographic Society, together with other partners in the public and private sector, can play important roles in this new era in recreation planning for our nation's outdoor resources.



Morning mist softens a stretch of the Appalachian Trail in North Carolina, which has been a leader in applying GIS technology to identify land and water conservation priorities.

Carr Clifton / National Geographic Stock



“A healthy mind in a healthy body.” The ancient Roman motto holds relevance and urgency today for America’s young people. Obesity rates have doubled and tripled in the past 20 years, with a dangerous rise in diabetes and heart disease.

Our Children's Future: Combating Obesity and Encouraging Environmental Education

Childhood obesity has reached alarming levels, calling for preventive strategies to improve children's health, including spending more time outdoors. Promoting outdoor activities among children also means reconnecting them to nature.

An alarming rise in obesity in children has triggered a spike in weight-related disorders such as diabetes, high-blood pressure, and heart disease among young Americans. It has fueled new attention to the importance of outdoor activities in individual well-being, especially children's health.

About eight million children are overweight, and obesity rates compared to two decades ago are double in children and triple in adolescents. According to the Surgeon General, only a quarter of American adults report that they participate in physical activity at levels recommended by health experts. Nearly 30 percent report no regular physical activity at all during leisure hours. Children are spending less time outside, more indoors. About half the people 12 to 21 years of age regularly participate in vigorous physical activity, while a quarter report none at all.

Contributing to this situation are hectic lifestyles, shorter vacations, changing family structures, changing activity preferences, the lack of readily accessible playgrounds for many children, parental fears about safety

and crime, as well as competition for time from other pursuits. A 2005 Kaiser Family Foundation study found, for example, that the average American child spends 44 hours per week in front of some kind of electronic screen. School policies that undervalue recess, physical education, and outdoor activities also have taken a toll.

The most important forms of participation in outdoor recreation are those that become routine and regular, part of one's lifestyle. The greatest health benefits are associated with close-to-home outdoor recreation. Proximity, in other words, is a critical variable determining rates of participation, and this should serve as a wake-up call for public officials and urban planners to ensure that parks and open space are woven into a community's fabric, an essential ingredient in community livability.

Until recently, there was not a recognized base of rigorous scientific research linking parks, outdoor activities, and recreation to better health outcomes. Consequently, the words "recreation" and "outdoor resources" provided little traction or political salience in setting priorities for improving health. The link between lack of physical activity and obesity has now been documented and provides a compelling case, during the ongoing national debate on health care reform, for promoting greater outdoor activity as a cost-effective, preventive approach to better health.



A little water can't dampen spirits at an urban park, but around the country many children lack ready access to playgrounds, and recess has mostly disappeared from school schedules.

The free-roaming outdoor play many older adults experienced in their youth has declined sharply. Environmental education experts report a growing “nature deficit” is evident among America’s youth, resulting from too little time spent outdoors. The trend is well described by Richard Louv, co-founder of the Children & Nature Network, in his book *Last Child in the Woods*. The reasons cited are familiar: poorly designed or inaccessible playgrounds or other outdoor spaces, apprehensive parents, hectic and overstructured lifestyles, and school curricula that do not provide time for outdoor activities. As the country has become increasingly urbanized, for many Americans the tie to open spaces and natural landscapes has diminished.

Engaging children at a young age is key to fostering lifelong enjoyment of the outdoors, an appreciation of the integral connection between people and nature, and awareness of the importance of recreation and outdoor

activities to physical, mental, and emotional health. The benefits are seen in more creative play and active imaginations, more opportunity to socialize with their peers, lower stress levels, better physical health and stronger immune systems, and less hyperactivity. One way some states are addressing the nature deficit is through hunter and angler mentoring programs for young people to encourage participation in these activities.

Many channels for environmental education exist through school coursework and clubs, parks and nature centers, community conservation groups, and the like. The National Environmental Education Foundation (NEEF), for example, sponsors an annual Environmental Education Week that is devoted to a theme—energy or water, for instance—and works with teachers to provide materials they can draw on. NEEF also sponsors Public Lands Day, thought to be the largest volunteer event getting Americans outdoors to work on clean up, restoration, and related projects. In concert with many federal, state, and local agencies, participation has exploded, up from 5,000 volunteers in 1997 to 120,000 in 2008. Sharp increases in participation occurred when state and local parks were added as close-to-home venues for volunteers; 600 urban sites now take part in Public Lands Day.

The Student Conservation Association (SCA) reports that its community conservation program, especially in urban parks, and its conservation leadership corps are among its fastest-growing ventures. SCA aims to nurture a conservation ethic among young Americans through volunteer youth service programs.

More nature education programs are successfully taking advantage of youths’ fascination with electronic devices to stimulate

outdoor learning. Cell phones programmed with bird calls can help identify species. Orienteering, nature photography, hiking and route marking, and scavenger hunts employing global positioning devices as a key component are becoming increasingly popular. They unite young participants in outdoor learning experiences.

Training youth for environment-related jobs is a corollary to environmental education. California Governor Arnold Schwarzenegger in early 2009 announced the state's plan to use federal stimulus money, along with other public and private contributions, to launch a "green" job corps that will benefit at least 1,000 poor youths, training them for jobs in installation, construction, and other facets of renewable energy to meet state goals for these energy sources.

The model for this, as well as many other conservation employment programs, is the Civilian Conservation Corps established in 1933 as part of President Franklin Roosevelt's New Deal to provide work and vocational training for unemployed single young men through forest conservation, tree planting, road and bridge construction, flood control, and related projects. At its peak, more than 500,000 people were put to useful work. More recently, President Obama and Congress have built on this, the Peace Corps, and other precedents for national service, including cleaning up parks, by expanding AmeriCorps dramatically. These programs create jobs and benefit the nation's natural resources.

In recognition of these goals, improving health and creating opportunities for young Americans, the Secretary of the Interior created a new Office of Youth and the National Park Service launched a pilot program in seven

Kids' Fishing Day, sponsored by the Bureau of Land Management, lures city youth; volunteer anglers teach them the ropes. Learning about the outdoors and the environment helps prepare them for life—and perhaps for "green" careers.



BLM / Eastern States

national parks, in cooperation with health professionals, to promote physical activity across the system. And at the state level, innovative efforts are under way: the governors of California and Maryland recently have issued proclamations outlining "Children's Outdoor Bill of Rights."

Outdoor activities and environmental education and training will result in happier, healthier, and smarter children prepared to take their place as citizens in a rapidly changing world.



Fir trees fleck a gold carpet of aspens in Colorado's San Juan Mountains. To protect and preserve treasured spaces, Americans are increasingly taking matters into their own hands through entrepreneurial land trusts and other private efforts.

The Growing Role of Private Stewardship

Private stewardship over the past 20 years has become a major entrepreneurial force in protecting land and water resources and providing outdoor recreation, as well as offering ample opportunities to advance the outdoor resources agenda.

Though chiefly focused on preserving open space and wildlife habitat in rural and outlying places, an entrepreneurial land trust movement has emerged nationwide as one of the key developments since the 1987 report of the President’s Commission on Americans Outdoors. Though the earliest local land trusts date to the 1800s, today the Land Trust Alliance (LTA) counts well over 1,600 individual land trusts as members, a figure that has doubled over the past decade. LTA reports that by 2005, state and local land trusts have protected more than 12 million acres, only a relatively small percentage through outright ownership, with much more through easements or in facilitated purchases by other groups or public agencies. With the national land trusts added in, the number of permanently protected acres jumps to 37 million.

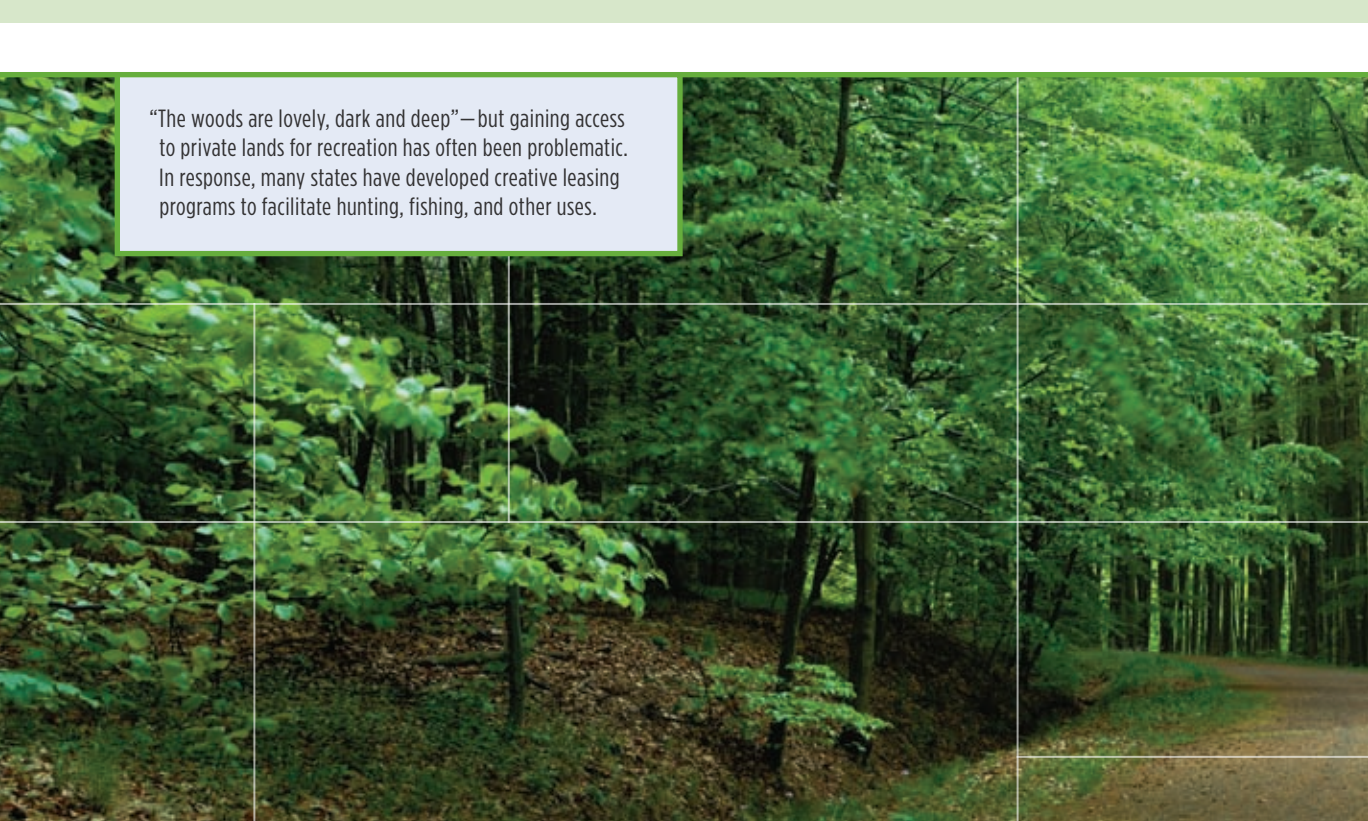
Land trusts, conservancies, park “friends” organizations, and related groups are working in tandem with public agencies, typically in quick and nimble fashion to protect and restore parks, open space, and land and water resources, often acting first when public budgets are insufficient. Increasingly, they work closely with

private landowners—willing farmers, ranchers, and others—to safeguard privately owned and managed forests, wildlife habitat, wetlands, and other working landscapes.

Part of the success of this movement is directly attributed to the flexibility demonstrated by the groups. They rely on a mix of approaches tailored closely to particular places and to the circumstances and needs of landowners. They have made extraordinarily effective use of federal and state funding programs, cost-sharing and tax provisions, voluntary conservation easements, and other incentives



A Seattle runner pounds up one of the area’s myriad paths. Washington State is a leader in private-sector conservation, boasting some 30 operating land trusts.



“The woods are lovely, dark and deep”—but gaining access to private lands for recreation has often been problematic. In response, many states have developed creative leasing programs to facilitate hunting, fishing, and other uses.

Panoramic Stock Images / National Geographic Stock

to solicit donations from private landowners to protect land and water resources. And they have drawn support from leading foundations and other philanthropic donors.

Gaining access on private lands for recreation, hunting, and fishing, however, has proved a challenge in any number of places. To address this concern, 19 states have used a variety of leasing structures to ensure hunters enjoy access to protected lands.

Conservation professionals have identified the emerging concept of payment for critical functions provided by natural resources—wetlands that serve as storm buffers or filter contaminants, forestlands that protect drinking water sources, riparian buffer strips that help improve water quality—as both a promising new source of funds for land and water conservation and a new means of engaging private landowners in conservation. Some private financial entrepreneurs are beginning to explore how they might be able to use private

capital to acquire large, strategic tracts of land that supply ecosystem services or could serve as mitigation banks, to help offset the negative effects of development projects while at the same time generating a stream of income for their investors.

Many urban communities benefit from private conservation efforts. Some groups, such as the New York City Parks Foundation and the Trust for Public Land (TPL), have a strong urban orientation. After the success of the Central Park Conservancy, admittedly benefiting from the affluent residents who live near the park, local philanthropists created a foundation to restore and maintain parks and sponsor programs in other parts of the city, including disadvantaged neighborhoods. The City Parks Alliance, a nonprofit national organization of city park advocates, is dedicated to promoting the central role that healthy parks and green spaces play in revitalizing urban areas and building stronger, healthier, more livable communities.

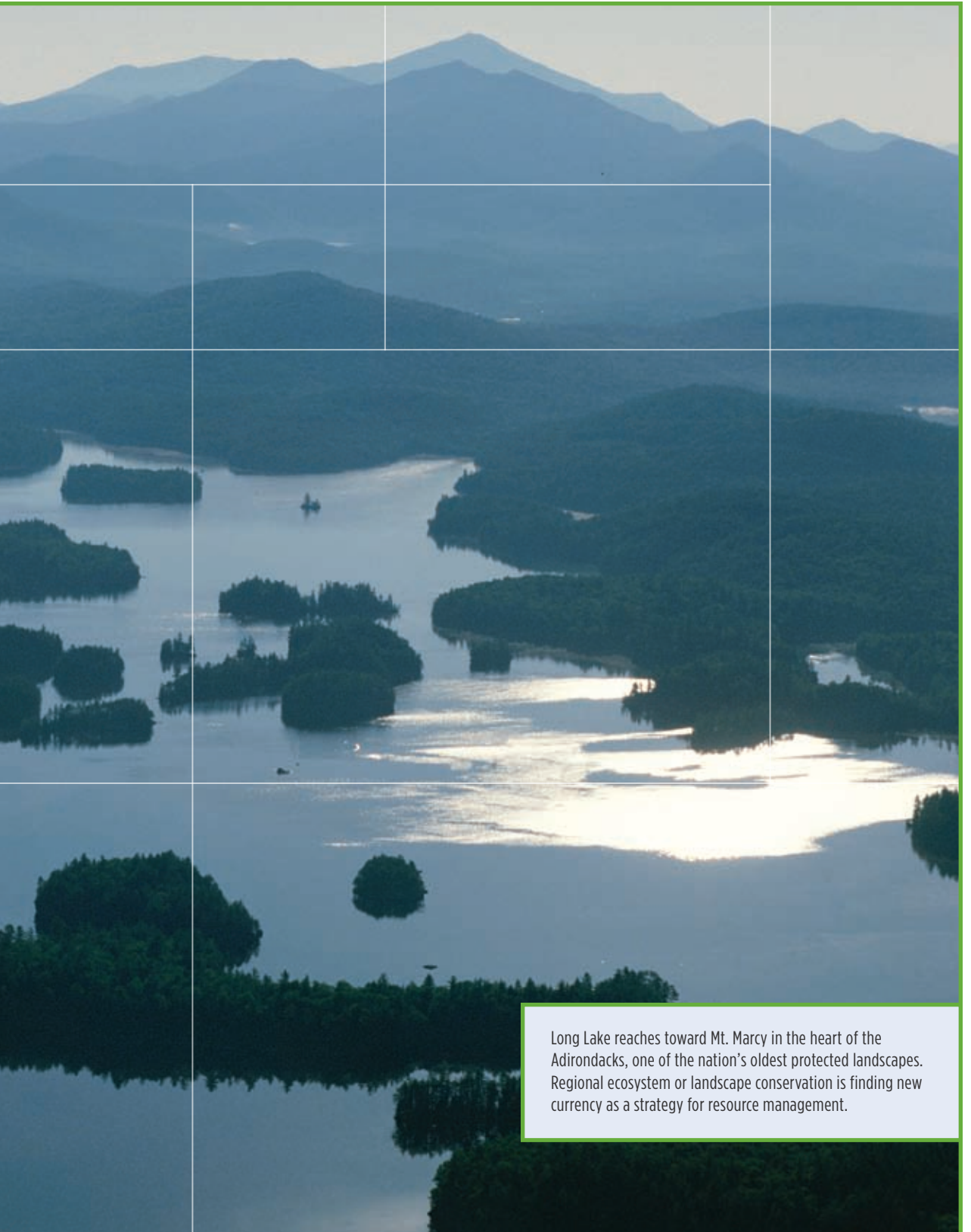


The private, for-profit recreation industry is also a force for land and water conservation, and an economic powerhouse in its own right. Hunters, anglers, and the industries that supply equipment to them have contributed significant funds through license and permit fees and excise taxes that directly benefit wildlife, protect and improve habitat, and provide outdoor recreation. Firms have invested heavily and will invest even more to provide recreational facilities and campgrounds in and near parks, on public lands, and near lakes, rivers, and other bodies of water, as well as to ensure these facilities are accessible and maintained. Private-sector activities in concessions within and adjacent to national parks have generated billions of dollars in economic activity. Ski resorts and boating marinas have proved especially popular with Americans in recent years.

According to the 2006 report “The Active Outdoor Recreation Economy,” by the Outdoor Industry Association, well over six

million people are employed full- or part-time, directly or indirectly, in outdoor recreation. The report estimated \$290 billion a year in sales for equipment, lodging, transportation, and other expenditures associated with outdoor recreation, and about \$730 billion total when the economic multiplier effect is taken into account. These figures undoubtedly underestimate the true contribution as they do not include motorized recreation, such as boating or off-road vehicle use, nor do they include a number of outdoor activities such as golfing or horseback riding.

With public budgets constrained, and with land and water conservation these days requiring more than fee simple land acquisition, advocates for outdoor resources have demonstrated remarkable entrepreneurship and dexterity deploying a variety of strategies that involve public-private partnerships, blending multiple sources of funding, and using conservation easements, tax credits, and other incentives.



Long Lake reaches toward Mt. Marcy in the heart of the Adirondacks, one of the nation's oldest protected landscapes. Regional ecosystem or landscape conservation is finding new currency as a strategy for resource management.

Landscape Conservation: An Effective Strategy

Landscape conservation is an increasingly effective strategy for safeguarding wildlife, treasured places, and other lands of national and state significance. Blueways, water trails administered by the National Park Service, and regional water trails offer a new, popular approach to conserving river corridors.

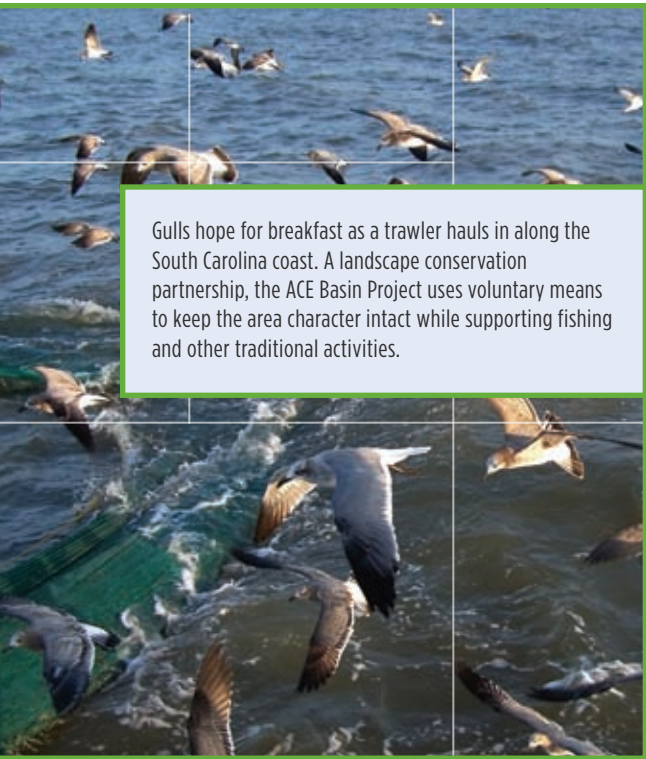
As helpful as individual conservation or habitat protection projects may be, they have not amounted to an effective approach to stemming the loss of wildlife, fisheries, and other resources to relentless pressures from development and pollution. Landscape-level or regional conservation has gained credence as a strategy for keeping viable ecosystems intact, productive, and functioning. It provides a sufficient land base to manage forests, water resources, wetlands, and other wildlife habitat for a broad range of benefits. It retains working landscapes and preserves natural and cultural landscapes that attract tourists. These, in turn, underpin the economies of small towns and rural areas.

This approach has gained impetus in response to emerging science about how ecosystems function, as well as in response to the continuing concern about nonpoint source water pollution from many sources, large and small, dispersed across the land. Effectively addressing this kind of pollution on the watershed level requires participation by all landowners, public and private.

Landscape-level conservation is hardly a new concept. Interstate river basin commissions, with the mission of improving water quality, of necessity drew states, localities, and adjoining landowners into partnerships to achieve their purpose. The Environmental Protection Agency's programs to restore the Great Lakes and Chesapeake Bay, the Gulf of Mexico, and other estuaries likewise foster broad partnerships with states, communities, nonprofit groups, and private landowners.

The Adirondack Park, comprising six million acres in northern New York State and dating to the late 19th century, offers an early example of a protected landscape intermingling public and private lands. Forty percent of the land is publicly owned and protected by a clause in the state constitution declaring these lands "forever wild." The remaining 60 percent is privately held, subject to regulation by the state. The Adirondack Park Agency, created in 1972, oversees planning and regulates development. New York State continues to invest in the park, protecting more than 200,000 acres in the past two years alone, by moving quickly as timber companies put large landholdings up for sale.

Federal and state wildlife managers and conservation groups, such as The Nature Conservancy and World Wildlife Fund, have learned from these experiences, applied geospatial tools to facilitate planning, and over many years adapted their conservation



Gulls hope for breakfast as a trawler hauls in along the South Carolina coast. A landscape conservation partnership, the ACE Basin Project uses voluntary means to keep the area character intact while supporting fishing and other traditional activities.

J. Barry Gooch, SCDNR

strategies accordingly. In recognition of this change in thinking about conservation, in early 2009, President Obama signed legislation creating a National Landscape Conservation System to protect environmentally and historically significant lands managed by the Bureau of Land Management, and conservation of 850 sites is now a priority. The Forest Service, too, in order to fulfill its mandate, has embraced the need for landscape-level conservation in a new open space strategy.

The Cumberland Plateau in Tennessee offers a recent illustration of how a region wide vision can yield extraordinary results for conservation. This part of the state is rich in its diversity of wildlife, with 175 types of hardwood trees, hundreds of bird and animal species, and 200 varieties of fish. Although flagged as a priority for protection in the state's wildlife action plan, without speedy intervention some of the best parts of this 230,000-acre area would have been carved up into vacation home sites, with wildlife and related values irreparably lost.

Over the past seven years, with leadership by Governor Bredesen and public agencies, The Conservation Fund and nonprofit partners have led a campaign that has conserved more than 125,000 acres. They blended acquisition with land protection agreements; secured state, private, and philanthropic funding; and granted rights to sustainable timber harvesting in some places.

Another good example comes from South Carolina. Recognized today as one of the most successful landscape-level conservation partnerships, the ACE Basin Project—short for the Ashepoo, Combahee, and Edisto river basin—began in 1988 as a special initiative under the North American Waterfowl Management Plan. The primary goals of the partnership have been to maintain the natural character of the basin, to promote wise management of private lands, and to support the continuation of traditional activities such as hunting, commercial and recreational fishing, forestry, and agriculture. Lands are protected through voluntary measures including conservation easements as well as fee title acquisitions of key properties.

The project has been a cooperative venture from its beginning. Representatives of South Carolina's Department of Natural Resources, Ducks Unlimited, and The Nature Conservancy established a task force to plan the initiative for an area that comprises some 350,000 acres of diverse habitat types located 30 miles south of Charleston. Joined by other conservation groups—including The Conservation Fund, Lowcountry Open Land Trust, and Nemours Wildlife Foundation—the partnership also expanded to include state and federal representatives, companies, and private landowners. With continued leadership from Governor Sanford, what originated

The U.S. Forest Service Embraces Landscape Conservation

Another important indication that landscape-level conservation is taking hold in land and water conservation comes from the U.S. Forest Service. In 2007, the Forest Service unveiled a report, “Open Space Conservation Strategy: Cooperating Across Boundaries to Sustain Working and Natural Landscapes,” which was prepared with substantial public input. While the mission of the service is to sustain the health, diversity, and productivity of the nation’s forests and grasslands, in this report the service acknowledges explicitly that it cannot do so without addressing more broadly the rapid loss of open space.

As its vision, the Forest Service sees “an interconnected network of open space across the landscape that supports healthy ecosystems and a high quality of life for Americans. Fully realized, this network will include sustainably managed private forests and rangelands, national forests and grasslands, other public land, riparian areas and wildlife corridors, and urban green spaces. Private and public open spaces will complement each other across the landscape to provide ecosystem services, wildlife habitat, recreation opportunities, and sustainable products.”

To accomplish this, the Forest Service outlines a strategy of cooperating with other federal agencies, states, regional councils, county and municipal governments, landowners, nonprofit organizations, recreational users, land trusts, developers, and other stakeholders at regional levels to identify priority lands for conservation. The service will also reach out to nontraditional partners, such as corporations, smart growth advocates, health organizations, youth groups, minority

and underserved populations, and religious organizations. A key element of the strategy is working with willing landowners and other partners to protect priority landscapes through acquisitions, conservation easements, land exchanges, donations, and other measures, including the Land and Water Conservation Fund and Forest Legacy programs. Leveraging additional funds and contributions will spur private conservation efforts that complement federal investments.

Other elements of the strategy include providing resources and tools to help communities expand and connect open spaces and reduce wildfire risks; advancing market-based approaches to conserving ecosystem services and enhancing ecosystem services, such as water-quality trading, conservation banking, and carbon-credit trading; and streamlining land adjustment and acquisition processes to improve the service’s ability to protect national forest lands under high development pressure.



Elk are home on the range in northern Wyoming. Concerned about loss of open space nationwide, the U.S. Forest Service supports the idea of an interconnected landscape network.

Michael S. Quinton / National Geographic Stock

Protecting a Treasured Landscape — Chesapeake Bay

Chesapeake Bay is the largest estuary in the United States, known throughout the world for its impressive biological productivity, cultural diversity, recreational resources, and scenic beauty. Captain John Smith, whose momentous voyages of exploration were recently memorialized with the establishment of the 2,300-mile-long Captain John Smith Chesapeake National Historic Water Trail, described the Chesapeake as one of “...the most pleasant places known, for large and pleasant navigable rivers, heaven and earth never agreed better to frame a place for man’s habitation.” The bay’s lands and waters and natural bounty nurtured the region’s earliest inhabitants and shaped much of America’s early history, culture, and economy.

Though the past 400 years have altered the Chesapeake, many great places remain—pristine marshes, riparian forests, islands, shorelines, river corridors, open spaces, and hidden treasures—that look much the same as those Captain John Smith saw in his explorations of Chesapeake Bay and its

tributaries in the years 1607 to 1609. These treasured landscapes retain to a remarkable degree their historic integrity from the time of the early Native American settlements and the first European contact. For the bay’s citizens, recreational users, and tourists, they evoke images of a much earlier time in the bay’s history and its unique heritage.

They also hold the promise of new opportunities for recreation, public enjoyment, conservation, and geo-tourism. Yet such scenic, wild, and historic landscapes are not adequately represented in the National Park System, or sufficiently protected by other agencies. Partnerships among government agencies, land trusts, and willing private landowners can play a key role in helping conserve these treasured places and afford Americans access to the outstanding recreational opportunities they provide. In recognition of the importance of Chesapeake Bay, President Obama in 2009 issued an executive order characterizing the Chesapeake landscape as a national treasure.



Queen of America’s bays, the Chesapeake is as beautiful as ever—on the surface. It must be restored to health and adequately protected as a treasured landscape.

Stephen St. John / National Geographic Stock

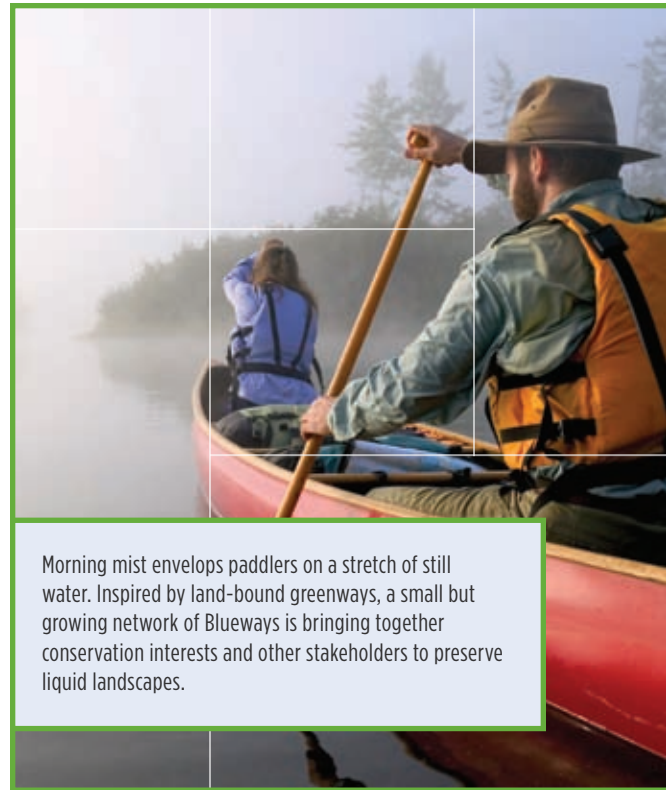
as an initiative to protect wetland habitat for waterfowl has evolved into a landscape conservation effort that has protected over 181,000 acres, with more than 88,000 acres being voluntary conservation easements on private lands and more than 68,000 acres of public lands.

Taking their cue from successful examples of regional land conservation, groups such as American Rivers are beginning to advocate for the same strategies that have worked on land to safeguard the water resources people depend on for daily use and recreational enjoyment. More than three and a half million miles of rivers and streams cross the American landscape, and most every community has a river nearby.

Blueways

In 2006, to commemorate the 400th anniversary of Captain John Smith's historic voyages of exploration of Chesapeake Bay, Congress established the first ever national water trail, administered by the National Park Service. Known popularly as Blueways (the water equivalent of hiking trails), more water trails are coming, which will provide a complement to the more familiar greenways concept that weaves together tracts of land surrounding communities to preserve important landscapes. In 2008, the National Park Service designated the Congaree River Blue Trail in South Carolina and named another, the Wateree River Blue Trail, which feeds into the Congaree.

Blueways are a new concept in the arsenal of tools for land and water conservation. Often sparked by local conservation interests, these Blueways can help communities realize a range of benefits, from improved water quality and close-to-home recreation, to waterfront



Morning mist envelops paddlers on a stretch of still water. Inspired by land-bound greenways, a small but growing network of Blueways is bringing together conservation interests and other stakeholders to preserve liquid landscapes.

Alaska Stock Images / National Geographic Stock

revitalization and tourism promotion. They can reduce costs for storm water management and flood control. And they can connect flyways and migration corridors to benefit wildlife; indeed, they can connect rural areas and the towns or urban settings through which the waterways flow. The Blueway approach mirrors what land conservation groups have learned to do effectively: identify and map resources, consult widely across the community, mobilize public support, enlist partners, engage adjacent landowners, blend funding sources, and employ land protection strategies.

As a central element in a reinvigorated agenda for outdoor resources, landscape-level conservation represents a promising strategy for effectively safeguarding valuable land and water resources and America's treasured landscapes. It requires the cooperation of many sectors and agencies, melds numerous sources of funding, and tailors strategies to the circumstances of communities and private landowners.



An ill wind that blows no good, global warming brings severe consequences, such as more wildfires in the West. Coastal regions are especially vulnerable as sea levels rise and storms intensify. Mitigation plans and adaptation strategies are crucial.

Threats from Climate Change

Climate change is already affecting parts of the country and damaging wildlife, forests, estuaries, and other outdoor resources and recreation lands, as well as posing challenges for land stewards in adapting their management practices. Wildfires bring growing threats: California's wildfire season is now year-round. Across the West, in the South, and as far north as Alaska, tree mortality has reached an unprecedented level. The bark beetle is destroying vast expanses of forestlands in the Rocky Mountain region; the larvae stand a better chance of reaching maturity as temperatures warm absent a hard freeze that would otherwise contain their spread.

Staghorn and elkhorn coral in U.S. coastal waters are the first species cited as endangered because of climate change. Pacific salmon are threatened by warming ocean waters and other pressures. Wildlife refuges along the coasts and in Alaska may be especially vulnerable. More places, especially coastal areas in the southeast United States and along the Gulf Coast, will face comparable challenges.

Water resources are especially vulnerable to a warming climate. Some of the earliest effects will be seen along coasts as sea levels rise, eroding shorelines and beaches; in altered patterns of precipitation with more intense storms and flooding; and in drought—all with dramatic consequences for wildlife, fisheries, forests, estuaries, and coastal areas. Communities may find their drinking water sources diminished as snowpack lessens; new infrastructure to capture water for use will strain public budgets further. More efficient use of water, along with greater recycling and desalination of ocean and brackish water may help alleviate some shortages. But

water resources are already stressed by rapid population growth in arid areas. Competition is fierce for large quantities of water needed for agriculture, energy development, power production, and biofuels.

Vulnerable parts of the country are starting to consider how they will adapt to rising sea levels, water resource constraints, and other impacts of a warming climate. Communities in the Chesapeake Bay region, for example, are already planning for sea-level rise and more severe storm surges, which will affect low-lying places, barrier islands, coastal wetlands, and favorite beaches. Shoreline erosion, coastal flooding, saltwater intrusion, the loss of wetlands and islands, and adverse consequences for commercial and recreational fisheries, as well as for vegetation and wildlife, will have profound economic impacts in the region. Maryland and Virginia, with partners in the nonprofit sector, are just beginning to craft strategies to reduce the region's vulnerability. They are mapping resources, developing educational materials and training programs, examining the role that conservation easements might play in helping private landowners adapt, and looking at infrastructure and other development policies that foster building in affected areas.

Adaptation strategies for land and water resources will be needed as the effects of climate change become more and more evident. Agencies and institutions responsible for monitoring and managing these resources will need to be better equipped. Public-private partnerships will be essential to engage private landowners, businesses, land trusts, and others. Funding, too, will be needed to tackle the challenge, as recognized in proposed climate legislation now before the House of Representatives.

A fresh breeze of renewable energy spreads across the California landscape, but debate over the use of public lands for energy development of all types is increasing. One answer: devote a portion of the proceeds to conservation funding.



Conflicts over Public Land Use

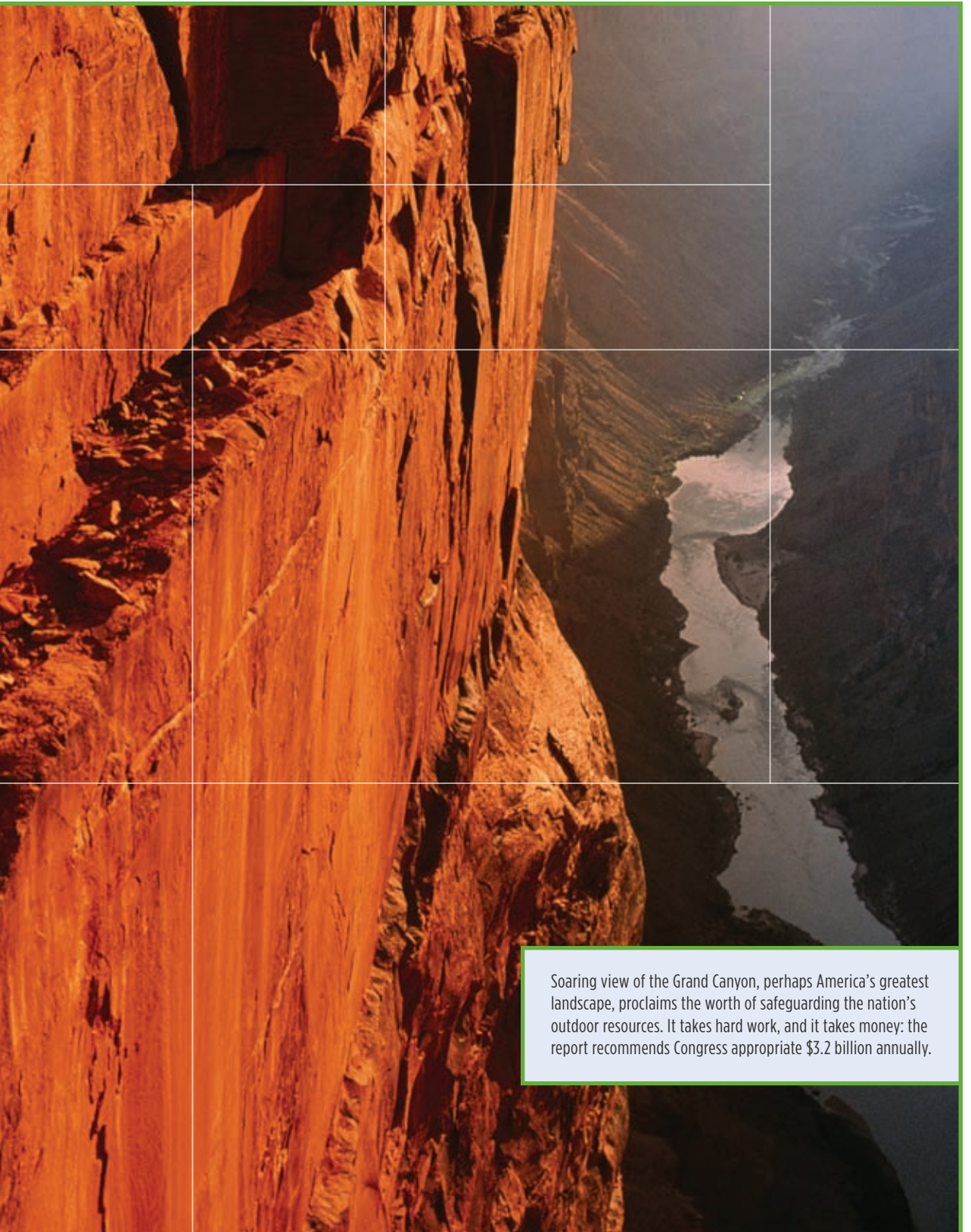
Conflicts over the use of public lands are emerging in the push to develop renewable energy resources and transmission corridors that will require reconciling competing activities, as well as avoiding, minimizing, and mitigating energy development's adverse impacts.

In a system of reserves that may be unmatched anywhere in the world, the public lands of the United States protect a variety of resources: open space; scenic areas; functioning ecosystems; lakes, rivers, and wetlands; wilderness; endangered wildlife; and sites and artifacts of scientific, historical, and archaeological significance. They provide outstanding recreational opportunities. The Arizona-based Sonoran Institute has documented how public lands increasingly are seen as anchors for the economic well-being of many western communities that depend on tourism and their appeal to retirees and entrepreneurs who can and do choose where they reside in part for their scenic appeal and recreation opportunities.

Rapid growth in the West over decades has put considerable pressure on the public lands. Many of these lands provide resources that contribute importantly to the country's economy and to local economies. Traditional resources include timber, rangeland, minerals, fisheries, and energy, such as oil, natural gas, and coal. Substantial supplies of water have been tapped to support the region's activities, including ranching and farming, putting growing pressure on the most critical resource in the most arid part of the country.

Climate change is triggering the need for new forms of energy development that will put additional demands on land and water resources. Pressure is mounting in the search for sites on public lands for solar, wind, and geothermal renewable energy projects. New transmission corridors will be needed to carry electricity from these sites to where people live. Pressure is building as well to open up more public lands and coastal waters for exploration and development of conventional fossil fuels such as oil and natural gas for transportation and power. Conflicts already are evident over the use of public lands for energy development, both conventional and renewable sources. And more are expected. Where development's impacts cannot be avoided through project design as a first measure, or secondly minimized, funding will be needed to mitigate the impacts and to help land managers adapt and communities adjust economically. In siting new underground transmission corridors, for example, complementary opportunities may exist to create trails along the right-of-way to expand the network of recreational trails across America.

At the same time, the push to develop renewable energy resources and transmission corridors on public lands may offer, where appropriate, a potential source of new, dedicated conservation funding. This will enshrine the sound principle that when public resources are exploited or impaired, a portion of the proceeds will be reinvested in protecting and improving the country's outdoor resources for the benefit of all Americans.



Soaring view of the Grand Canyon, perhaps America's greatest landscape, proclaims the worth of safeguarding the nation's outdoor resources. It takes hard work, and it takes money: the report recommends Congress appropriate \$3.2 billion annually.

Recommendations: A Policy Agenda for Outdoor Resources

The following eight recommendations speak to the priorities that emerged during ORRG's discussions and consultations. They reflect and build on the findings presented in the previous sections.

1. Congress should permanently dedicate funding for the Land and Water Conservation Fund at \$3.2 billion annually (the highest historical authorized level of \$900 million adjusted for inflation), with a share guaranteed to the states and, in turn, to urban areas.

Congress should permanently dedicate funding at the highest historical authorized level (\$900 million a year) adjusted for inflation, that is, no less than \$3.2 billion annually, with a share guaranteed to the states and, in turn, to urban areas. The ultimate target should be \$5 billion a year by no later than 2015, the 50th anniversary of the LWCF, reflecting continual inflation and future population growth. This financial support is needed to protect natural, historical, ecological, cultural, and recreational resources around the country, including parks, wildlife refuges, forests, and other resource lands and waters.

In the near term, funding at this level is admittedly a difficult request in a very difficult federal fiscal situation. Without additional funding, however, there is little chance to address the program's shortfalls and shortcomings.

2. To overcome fragmentation among multiple programs at multiple levels, geospatial planning tools should be fully utilized to improve the efficiency, effectiveness, and transparency with which LWCF and other public and private funds are spent.

Although it is not the only means to overcome fragmentation and improve coordination among many diverse conservation and recreation programs, GIS technology has demonstrated its utility as a tool to pull together the variety of information that can result in better planning. A public-private partnership should advance its application in facilitating strategic investments in outdoor resources and ensuring transparency in how conservation dollars are spent. The U.S. Geological Survey, in partnership with the National Geographic Society, can play a leading role in this initiative.

3. Public and private organizations should aggressively promote recreation and nature education for America's youth so as to engage them early in realizing the lifelong health and other benefits from participating in outdoor activities.

Numerous public agencies, schools, nonprofit groups, businesses, and other organizations offer opportunities through their own programs and through partnerships to promote health and nature education for young Americans. Environmental education will help prepare them

to take their place as stewards of the country's resources and make wise choices at home and at work, as citizens and as consumers.

The President and members of Congress as they tackle health care reform should stress that recreation and outdoor activities, alongside better diets and regular checkups, are important ways to improve health. The payoff comes over a lifetime: outdoor recreation and other activities translate into better health, and that translates into economic savings.

The National Park Service should enlarge its pilot program to encourage physical activities in the parks. This program should serve as a model for state and local park systems to promote outdoor activities in close-to-home settings.

Park and recreation professionals at all levels—federal, state, and local—should seek alliances with educators, health professionals, health care reformers, members of the health care industry, economic development specialists, and others who can help make the case for outdoor resources in order to build support for budgets and for public-private partnerships that will lead to better health outcomes and more livable communities.

Federal and state officials should continue to foster volunteer efforts on behalf of outdoor resources and participate actively in public-private partnerships. They also should expand youth conservation corps and similar programs, as well as ensure that conservation service is part of the newly expanded AmeriCorps.

4. Federal, state, and local agencies should continue to promote and support private-sector stewardship through public-private partnerships, joint funding, extended tax

benefits for conservation easements, and other incentives.

Private-sector activities have delivered remarkable conservation results over recent decades. These efforts are to be encouraged and new incentives developed to improve their reach.

Congress should consider larger incentives and tax credits for qualified gifts to help secure private inholdings of lands designated as significant for national parks, trails, wildlife refuges, and other public resource systems.

Researchers in public agencies, nonprofit groups, and universities should further study the conservation potential of payments for ecological services, especially to quantify the benefits they provide, develop the means to verify these benefits, and identify ways to capitalize on potential markets to engage investors and private landowners to benefit our country's land and water resources.

5. Federal and other public agencies should elevate the priority for landscape-level conservation in their own initiatives and through partnerships across levels of government, with land trusts, other nonprofit groups, and private landowners to conserve America's treasured landscapes.

The Secretary of the Interior should work with state and local officials, land trusts, conservancies, and other groups to identify opportunities for landscape-level conservation in both rural and urban settings. The U.S. Forest Service and the Bureau of Land Management both have adopted new priorities for landscape-level conservation that offer models for what public agencies can and should do in reorienting their strategies and engaging neighboring landowners.

An increment of the Land and Water Conservation Fund should be allocated to the Secretary for use at his discretion to encourage landscape-level conservation by stimulating innovative public-private partnerships and rewarding outstanding state and local commitments to protecting treasured landscapes.

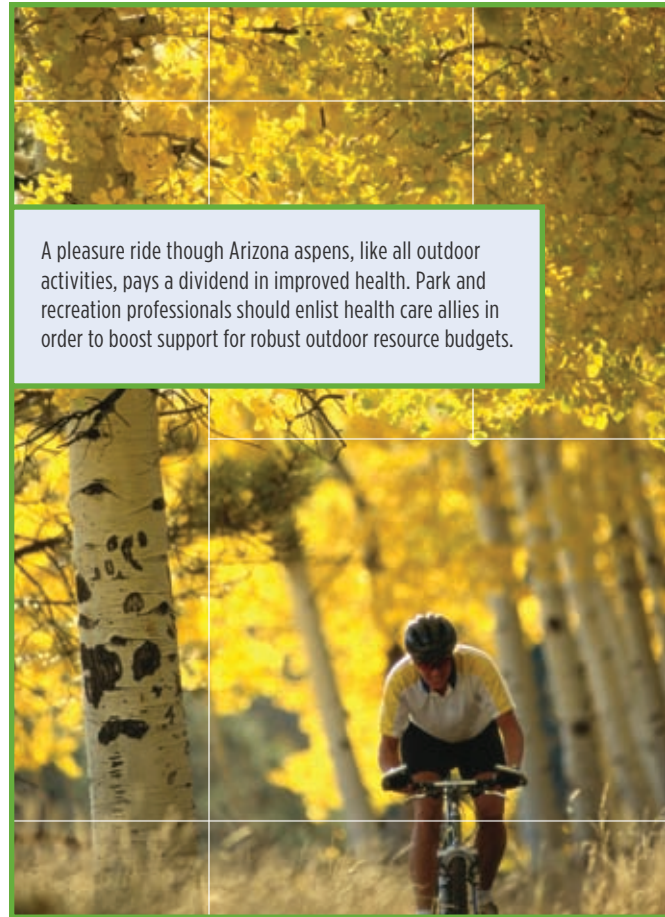
6. The Secretary of the Interior should establish a new nationwide network of Blueways and water trails along rivers and coastal waterways.

Blueways and water trails offer multiple benefits. A national network should be created through public-private partnerships among federal, state, and local agencies and private landowners. This will build momentum for improving water quality, creating close-to-home recreation opportunities, revitalizing communities, protecting wildlife corridors, and employing conservation strategies that link together urban and rural settings.

7. Any national program to reduce greenhouse gases should include funding to adapt resource lands and waters to the ecological impacts of climate change. As climate change increases the pressure on public lands to develop renewable and conventional energy resources and transmission capacity, funding also will be needed to reconcile growing conflicts over resource use and mitigate impacts where they cannot be avoided in project design.

Federal land managers should be monitoring and reporting on the effects of climate change on outdoor resources and study measures to address the effects.

Congress should earmark a portion of revenues derived from any national program to reduce



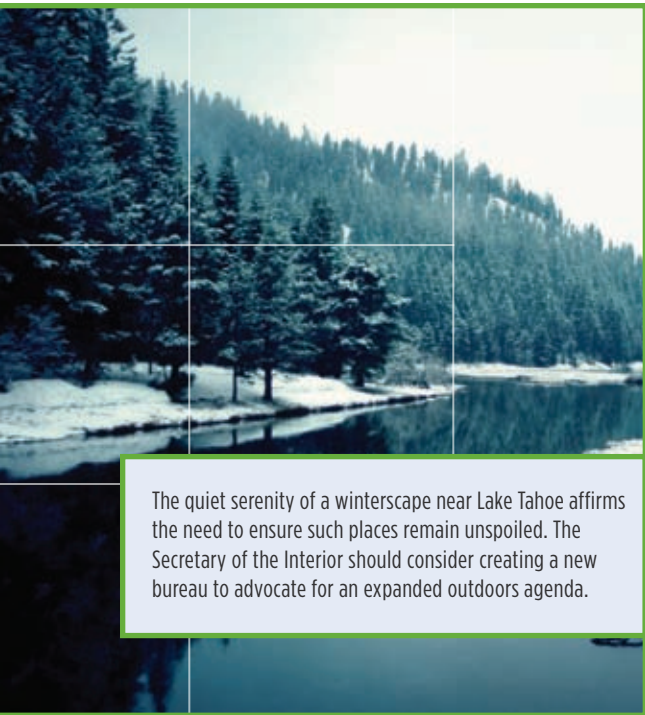
A pleasure ride through Arizona aspens, like all outdoor activities, pays a dividend in improved health. Park and recreation professionals should enlist health care allies in order to boost support for robust outdoor resource budgets.

Bill Hatcher / National Geographic Stock

greenhouse gases for managing adaptation of public lands and waters, including fish and wildlife habitat and related recreation areas, and for addressing conflicts that may arise over siting new renewable and conventional energy projects and transmission corridors.

Congress should study as a potential source of new, sustained conservation funding dedicating a portion of the royalty and lease revenues derived from new energy development on the Outer Continental Shelf and on public lands to protecting and improving the country's outdoor resources.

8. New government structures should be explored to advance the outdoor resources agenda: to bolster the priority and capabilities within the Department of



The quiet serenity of a winterscape near Lake Tahoe affirms the need to ensure such places remain unspoiled. The Secretary of the Interior should consider creating a new bureau to advocate for an expanded outdoors agenda.

the Interior, to improve interagency cooperation, and to put outdoor resources funding and planning on a long-term, sustainable foundation.

Current structures and funding for outdoor resources are insufficient to meet the needs of a growing population. Other, equally important objectives are also compromised by the lack of sufficient, dedicated funding: ensuring that states and communities receive a fair share of support; improving planning, cooperation, and coordination within the Department of the Interior and across the federal government; and enabling the country to meet new challenges through public-private partnerships. Given these fiscal realities—and in anticipation that authorization for the Land and Water Conservation Fund is due to expire in 2015—ORRG recommends the Secretary of the Interior, in concert with other members of the administration and Congress, address the following areas for further study:

- elevating the priority and bolstering the capabilities within the Interior Department

to ensure there is sufficient capacity to make needed conservation and recreation investments;

- using the Migratory Bird Conservation Commission and other cross-cutting federal models, creating an interagency council or other mechanism to ensure coordination and collaboration across agencies of the federal government; and
- providing dedicated and assured funding and improved planning through a new independent trust.

Raising the Priority within the Interior Department

Outdoor resources and recreation need a champion, an advocate, in the federal government with expanded capabilities to plan, seed public-private partnerships, and undertake other functions critical to making necessary strategic investments. The advocate must also promote the value of outdoor resources and recreation in community life and their benefits to our economy, public health, youth education, and the like. The concerns and opportunities outlined in this report extend beyond the LWCF mandate and its lead implementing agency, the National Park Service.

The Secretary of the Interior should examine options for a new entity in the Department of the Interior, for example, a bureau on a par with the National Park and Fish and Wildlife Services, to administer the LWCF and to advocate on behalf of an expanded and reinvigorated national agenda for outdoor resources. This bureau could be established by secretarial order in the Department of the Interior to enable the federal government to pursue near-term needs and opportunities in outdoor resources and recreation.

Interagency Cooperation across the Federal Government

The federal government also needs stronger interagency cooperation and coordination. The agenda for outdoor resources and recreation extends beyond the responsibilities of the Department of the Interior. Federal programs that benefit land and water conservation and outdoor recreation are run by other departments and agencies of government, including Agriculture, Transportation, Defense, and the National Oceanic and Atmospheric Administration. The important link among outdoor resources, recreation, and health is of growing interest to the Centers for Disease Control and Prevention in the Department of Health and Human Services. Recreational areas managed by the Army Corps of Engineers serve an important purpose and could be expanded to better reach underserved places and populations.

For the first time in a generation, urban America is receiving high-level attention as President Obama's administration renews

focus on urban policy through an urban affairs office in the White House and a recharged Department of Housing and Urban Development. These developments offer promise that priority capital needs in urban parks and recreation facilities may finally be addressed in ways that advance broad community objectives in livability, health, economic growth, green infrastructure, and the like.

Numerous obstacles thwart interagency cooperation, however. Federal programs are established pursuant to distinct laws under separate congressional committee jurisdiction. The programs have their own specific objectives, agendas, and planning processes, their own relationships with manifold state and local counterparts, private stakeholders, and others. Budget appropriations, which come from still other congressional committees, control staffing, contracting funds, and discretionary dollars, providing few incentives for officials or agencies to reach out beyond their stated missions to cooperate with other agencies and pool resources on common challenges.



Use them or lose them? Like a father and son camping near Washington, D.C., Americans can bolster support for outdoor resources simply by enjoying them.

BLM / Eastern States

Strong leadership from the administration is needed to overcome these obstacles and foster effective interagency cooperation and collaboration. A federal interagency council is one idea that should be explored. Precedent exists for such a dedicated interagency council from the years after the Outdoor Recreation Resources Review Commission reported. Alternatively, since 1970, the President's Council on Environmental Quality has had the explicit mission of integrating environmental priorities across the federal establishment, and could provide leadership to ensure cooperation and integration in outdoor resources policy among the many relevant federal agencies. One leading model for improving interagency

coordination is the Migratory Bird Conservation Commission, chaired by the Secretary of the Interior, with other cabinet agencies and with two senators and two representatives serving officially on the commission. This structure provides a good example for cooperation and collaboration not only across federal agencies, but with Congress, states, and private groups to acquire land for national wildlife refuges.

Sustaining Outdoor Resources through a New Independent Trust

To meet the outdoor resource and recreation challenges for the 21st century, ORRG proposes for study a fundamental reorientation and restructuring of federal responsibility and funding for outdoor resources. The proposal for study would establish during the next four years, prior to the expiration of the LWCF in 2015, an independent conservation trust within the federal establishment with dedicated and sustained revenue streams. Creating this new institution to drive land and water conservation and recreation opportunities would ensure a lasting legacy from this generation to future generations.

This new trust could take responsibility, for example, for facilitating geospatial planning; developing allocation formulas for federal, state, and local participation; coordinating interagency programs; fostering public private partnerships; promoting landscape-level conservation; and performing other critical functions.

The level of LWCF funding, adjusted for inflation to make up for eroded purchasing power, would provide base funding and might be augmented by other receipts. In identifying other potential sources, one aim would be to enshrine in law the sound, central principle that when public resources are exploited or impaired, a portion

of the proceeds will be reinvested in protecting and improving the country's outdoor resources. Annual expenditures by the new trust of \$5 billion are justified, a figure derived by adjusting upward for inflation and population growth the high mark for the fund in 1977, with an added increment reflecting anticipated growth in the number of Americans.

In concert with Congress, the administration should examine and consider the merits of this concept further by studying a number of key issues:

- the trust's mission, priorities, and means of operation;
- the type and level of current sources of funding that might be folded into the trust;
- the role of new dedicated funding sources, including, by way of example, the following:
 - a dedicated percentage of lease revenues and royalties from developing new renewable and conventional energy resources and transmission capacity on the outer continental shelf and public lands;



On the move, Canada geese take flight near Salina, Kansas. A proposed new federal trust could ensure a lasting national conservation and recreation legacy.

Joel Sartore / National Geographic Stock

- new excise taxes for conservation and recreation, embodying the principle that “users pay/users benefit” and drawing on the model of Pittman-Robertson and similar dedicated excise tax-funded programs;
- revenues from compensation for impairment of resources that cannot be avoided or minimized—for example, from the impacts of energy development or the release of hazardous substances or oil (as authorized through the natural resource damage assessment process).
- allocation formulas to ensure that federal, state, and local needs are consistently funded along with appropriate requirements for matching dollars;
- the degree to which these programs and their funds should be coordinated and integrated pursuant to improved federal and state planning; and
- the governance structure and the means by which federal agencies, state and local governments, and the private sector would participate.

In addition to the Migratory Bird Conservation Commission, several other existing institutions could be examined as models for successfully incorporating public and private roles in utilizing diverse funding sources, structured review processes, advisory boards, and the like, including, for example, the Smithsonian Institution, the National Endowments for the Arts and for the Humanities, and the National Fish and Wildlife Foundation.

Follow-up Activities

By necessity, this assessment was limited in time and scope; follow-through is required, indeed essential, for progress. One or more



Orienteering campers look for their next landmark. To navigate through 21st-century outdoor resource challenges will require enlightened government, a motivated private sector, and—most important—the wholehearted support of the American people.

of the following activities may offer timely and constructive means by which to consider and advance proposals for reinvigorating the outdoor resources agenda, including defining the appropriate policy framework, the budgetary implications, and the effective use of funds to meet current demand and anticipate future needs. These include:

- congressional hearings or workshops before the Senate Committee on Energy and Natural Resources and the House Natural Resources Committee in order to enlist congressional support for action;
- drawing on the precedents established by the Outdoor Recreation Resources Review Commission and the President’s Commission on Americans Outdoors, a congressional or presidential commission, with a mandate to report back in 18 to 24 months with an in-depth review of outdoor resources policy issues, including changes in supply and demand, funding, public-private partnerships, health and education benefits, and the like;

- a White House Conference on Outdoor Resources, drawing in the nation’s governors and mayors, the recreation industry, conservation leaders, public health advocates, educators, and other important sectors that could elevate priority for these issues, spark new initiatives, establish important linkages among them, and nurture a constituency to pave the way for further action;
- an initiative by the Secretary of the Interior and President Obama’s administration, working with members of Congress, to review and craft proposals to strengthen current programs or create new ones, improve planning, provide secure funding, encourage public-private partnerships, and lay groundwork for outdoor resources policy for the next several decades; and
- widespread dissemination of this report, especially to Congress, governors, county executives, and mayors, along with distribution to the full spectrum of stakeholders.

A Concluding Note

Progress in safeguarding land and water resources and treasured landscapes, as well as realizing the health, education, community livability, and other benefits associated with nature conservation and outdoor recreation, will require actions on many different fronts—by Congress, by executive branch agencies, by states and communities across the country, by the academic community, and by the private sector.

An active and vocal constituency is needed to ensure that the priority for outdoor resources influences the public policy agenda and public budgets in constructive and lasting ways.

Outdoor resources are important to countless conservation and recreation groups across the country: hunting and fishing clubs; land trusts; the recreation industry; owners of farms, ranches, forests, and other working lands; visitor and tourism bureaus; health and nature advocates; educators; and many others with a direct stake in healthy land and water resources. But this constituency is fragmented, lacking the kind of broad-based cohesion needed in today’s political arena to influence policy and funding. That has to change.

In framing the new agenda for meeting America’s outdoor recreation needs in the 21st century, federal leadership also is essential: to provide resources; to meet federal land management and acquisition needs; to aid state and local efforts in conservation and recreation; to leverage private-sector philanthropy and contributions; to reward promising and innovative partnerships; to conserve treasured landscapes; to improve coordination, planning, and priority setting; to support research; and to make abundantly clear the relationships among outdoor recreation, health, education, and the economy.

Over the past century, even in challenging economic times, land and water conservation and outdoor recreation have been central to our country’s prosperity and well-being. What is at stake, now and for future generations, is the health of our people, our economy, our communities, and the lands and waters on which we depend—in short, the quality of life we enjoy. In conservation, as in so many other areas of life, Americans have risen to the occasion before and are now called upon to do so again.

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Additional Resources

A downloadable version of this report and a collection of background papers produced in support of the Outdoor Resources Review Group can be found online at www.rff.org/ORRGpubs.

The topics addressed in the background papers include conservation funding programs, outdoor recreation and health, and trends in park funding and participation at the state and local levels.

For further information on the Outdoor Resources Review Group, please visit www.rff.org/ORRG.

Acknowledgments

The Outdoor Resources Review Group is grateful for the support and assistance of more than 150 individuals and organizations who participated in this effort by attending meetings, providing data, and more. A full list of participants can be found online at www.rff.org/ORRG.

The group thanks the following individuals for their assistance:

- David Brooks, Senior Counsel, Senate Energy and Natural Resources Committee
- Tom Craig, Projects Manager/Legislative Assistant, Office of Senator Lamar Alexander
- LaTonya Miller, Former Legislative Assistant, Office of Senator Lamar Alexander
- Brent Wiles, Projects Assistant, Office of Senator Lamar Alexander
- Will Shafroth, Deputy Assistant Secretary for Fish, Wildlife, and Parks, U.S. Department of the Interior
- Ken Cordell, Project Leader and Pioneering Scientist, U.S. Forest Service
- Dan Sakura, Vice President for Government Relations, The Conservation Fund
- Barbara Moffet, National Geographic Society
- Linda Bettencourt, Beveridge & Diamond, P.C.
- Beth Burns, The Conservation Fund

The group gratefully acknowledges the efforts of:

- Editors: Gordon Binder and Felicia Day
- Photo caption editor: Bob Booth
- Photo services: National Geographic Society
- Design/Production: Rock Creek Strategic Marketing

The group offers special thanks to Beveridge & Diamond, P.C., The Conservation Fund, and National Geographic Society for their *pro bono* contributions.



Printed on Chorus Art Silk, an FSC certified paper that has 50% recycled content, 25% of which is post consumer waste, and is also elemental chlorine free (EFC).



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Published by **Resources for the Future**
1616 P Street, NW
Washington, DC 20036-1400

