For all the success in protecting eastern watersheds under the Weeks Act, the next century under the forward-looking law brings with it some uncertainty. Various partnerships between private and public players may be key to continuing the vision of the Weeks Act.

DECONSTRUCTING THE RENAISSANCE

HOW THE WEEKS ACT AND CONSERVATION INNOVATORS
RESTORED THE EASTERN FORESTS

t the outset of the twentieth century, forests across the eastern states were in tatters. Unsustainable logging and widespread clearing for agriculture and livestock had reduced eastern forests to a patchwork of eroded hillsides, damaged watersheds, and degraded forests. The Appalachian forests were a

particular problem, providing a highly visible example of what was going wrong.

Now in the early years of the twenty-first century, these same lands are a forest stronghold for the nation—providing clean water, forest products, fish and wildlife, and recreational assets. This ecological renaissance has enabled the growth of huge population centers and vibrant economies across the eastern states.

Try to imagine New York City without its world-class water from the mountain forests of the Catskills and Highlands, or Coca-Cola without its pure water from the mountains of north Georgia. The dense population and bustling commercial centers of the eastern states are viable and prosperous in significant part because of the rural forest land base that surrounds them.

How did the eastern forests return amidst so much population growth? One common thread is the Weeks Act of 1911—a vision-

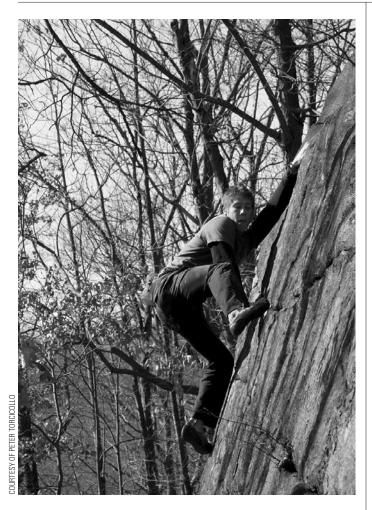
ary law that authorized the establishment of the eastern national forests and created new federal partnerships with the states to conserve forests.

However, the full story is complex, with vital efforts and players that lie beyond the scope of the Weeks Act itself. It is important to understand how conservation innovators took the vision of the 1911 Weeks Act and adapted it during a dynamic century of change. It is likely that the next century will require efforts even more nimble than those of the past century. The relentless expansion of low-density development, coupled with new threats like climate change, once again places the future of the eastern forests in doubt.

LOOKING BACKWARD TO LOOK FORWARD

Like a branching tree, the return of eastern forests accelerated

BY JAD DALEY



with the planting of a single seed: the Weeks Act of 1911. The Weeks Act came in response to cries of alarm from across the eastern states. Elected officials, business owners, outdoor enthusiasts, and common citizens all played roles as early catalysts for federal action to protect eastern forests.

One of the most effective advocates was the Appalachian Mountain Club. This venerable Boston-based institution was founded in 1876 by citizens who loved to hike the White Mountains of New Hampshire and other New England ranges. They saw firsthand the decimation of the Northern Forest by timber overharvesting and were relentless in pushing New England's delegation for action—including congressman John Weeks of Massachusetts. Another northern leader was the Society for Protection of New Hampshire Forests, founded in 1901, which similarly pushed New England legislators.

At the same time, pressure was building from the South. In response to complaints from Southern lawmakers and citizens, including the newly formed Appalachian National Park Association, the McKinley administration ordered Secretary of Agriculture James Wilson in 1901 to study the condition of the Southern Appalachian forests. His assessment found them in disrepair and reported great threats to the future navigability of rivers, as well as significant strain on other public interests, if the region's watersheds were not protected and restored.

From 1901 to 1911, forty bills promoting some form of protection for eastern forests went down to defeat. However, the weight of need for conservation eventually overwhelmed congressional resistance. A wave of devastating flooding over the



Suburban New York City is not normally associated with activities like downhill skiing or rock climbing. But because of conservation efforts in the Highlands region, both are possible and are just a short drive from several major metropolitan areas. The rock climber is in the Ramapo Mountains just off of the New York State Thruway; the skiers are at Mountain Creek ski area in Vernon, New Jersey.

decade, exacerbated by the dilapidated state of eastern watersheds, was one of many triggers that finally convinced lawmakers to approve the Weeks Act.

The final bill authorized the creation of a system of eastern national forests, with the constitutional hook that these forests were to be established for the purpose of protecting the navigability of rivers by protecting their headwaters. Since navigability of rivers was interpreted as a federal concern under the commerce clause of the U.S. Constitution, this created sufficient federal interest to support large-scale federal acquisition. Section 2 of the Weeks Act complemented this strong federal role by providing funding to states to support federal-state partnership around the Weeks Act's goals.

THE FIRST WAVE

During the period from 1911 through the 1970s, the goals of the Weeks Act were most visibly, although not exclusively, pursued through the most traditional conservation technique envisioned by the Weeks Act—federal acquisition. Implementing the Weeks Act through acquisition required the approval of purchase areas that would become the eastern national forests. This responsibility fell to the National Forest Reservation Commission (NFRC), which identified areas within which the federal government was legally authorized to purchase land for each national forest.

The earliest purchase areas approved by the NFRC focused largely on the southern Appalachians and White Mountains. These initial purchase areas eventually became Pisgah National Forest and White Mountain National Forest and included other iconic national forests we enjoy today. The pace of the NFRC's approvals waxed and waned over the years but permanently expanded in scope and scale with the passage of the Clarke-

McNary Act of 1924 and the Woodruff-McNary Act of 1928. The former expanded the purposes of the national forests to allow for watershed-scale conservation—freeing national forest purchase areas from being closely tied to headwaters protection—and the latter provided an increase in annual appropriations to implement the Weeks Act through acquisitions.

Over the next 70 years, the pace of acquisition remained strong. A shot in the arm came with passage of the Land and Water Conservation Fund (LWCF) Act in 1965. This law provided increased funding for federal acquisitions by tapping oil and gas receipts from drilling on federal lands. In the first five years of the LWCF, eastern national forest acquisitions jumped from the recent low of 6,000 acres in 1960 to 600,000 acres between 1966 and 1970. In total, Weeks Act acquisitions from 1911 to 1976 totaled 20.7 million acres at a cost of \$118 million—about \$5 an acre.

In 1976, the responsibilities of the NFRC were transferred to the secretary of Agriculture. This coincided with major shifts in land use and conservation across America—harbingers of important changes in how Americans would pursue future conservation of eastern forests.

THE SECOND WAVE

The second wave of eastern forest conservation has been marked by continued federal acquisitions to add land to existing eastern national forests, but no new national forests have been authorized since 1961. As the expansion of the national forest system slowed, this federally led forest conservation has been complemented by a dramatic upsurge in three areas of activity: conservation easements, state-level conservation leadership, and landscape-scale conservation partnerships. Interestingly, the origins of these "new" strategies actually hearken back to the Weeks Act and the leading efforts of its time.

Conservation Easements and Private Nonprofits

Perhaps the most dramatic shift since the early 1980s has been the explosion of conservation easements. While conservation easements were used as early as the 1930s by the National Park Service, they did not become widely used until the 1980s. A series of court cases in the 1970s settled important legal questions surrounding easements, and were followed in 1981 by the development of the Uniform Conservation Easement Act by the National Conference of Commissioners on Uniform State Laws. With the emergence of this act, states across the country passed legislative acts to authorize the use of conservation easements, including by private entities such as land trusts.

The results have been stunning. A recent survey for the establishment of the National Conservation Easement Database suggests that there are more than 40 million acres of conservation easements in place nationwide, with the majority of those easements in the eastern states. Largely through easements the private nonprofit Vermont Land Trust has conserved a remarkable 500,000 acres of Vermont's agricultural and forested land—an area larger than the Green Mountain National Forest.

Whereas there were 743 land trusts across the nation in 1988, today there are thousands of land trusts, with more being created each year. The private nonprofit Land Trust Alliance provides a support system for land trusts, and it advocates for important legislation that helps support land-trust work nationwide. The tremendous growth of this new conservation actor and land trusts' highly effective use of conservation easements have fun-

damentally changed how conservation is being accomplished in the eastern forests.

State Leadership

Nonprofits have not been alone in catalyzing use of conservation easements. As mentioned above, section 2 of the Weeks Act provided funds to states to help them partner with the federal government around shared conservation goals. This almost immediately spawned direct federal-state partnerships around issues like fire control and also inspired states to initiate their own forest protection efforts.

Over the last few decades, states have used new federal legislation, matched by state and local conservation funding, to play an even bigger leadership role for conservation. One example is the federal Forest Legacy Program, which provides 75:25 matching grants to enable states, nonprofits, and others to partner around important conservation easement projects. The program was created in the 1990 Farm Bill, with leadership from Senator Patrick Leahy of Vermont, to protect important working forests, watersheds, habitat areas, and recreation assets.

The Forest Legacy Program has been a runaway success, growing from a regional effort in New England in its early years to active programs in 49 states. Forest Legacy has helped to fund conservation of more than 2 million acres of forestland, including more than 675,000 acres in Maine alone. In some eastern states, Forest Legacy grants have become the federal government's most substantial financial contribution toward land conservation—a perfect complement to more traditional federal acquisition efforts.

One signature Forest Legacy project is the Connecticut Lakes Headwaters project in New Hampshire. This project conserved a single ownership of 171,000 acres covering New Hampshire's entire northern tip—almost 3 percent of the state's land area. This important forest is critical to the working forest economy of a very rural region and is also an engine for tourism thanks to its world-class native trout fisheries. When International Paper put the vast property up for sale, it seemed impossible to imagine a conservation solution. While in an earlier era the logical strategy might have been public acquisition of the tract, perhaps for a new unit of the White Mountain National Forest, the conservative local communities wanted more local control.

The resulting conservation deal mixed a 146,000-acre conservation easement on lands that remained a private working forest with 25,000 acres of state acquisition. State acquisition focused on the most ecologically sensitive lands and high-value public recreation sites. The Forest Legacy Program made this project possible by funding \$11.5 million of the \$42 million total project cost, matched by state and private funds. The project spawned a community planning process that has led to enhanced recreational use and supported continued forestry operations. Connecticut Lakes Headwaters stands as a reminder that new tools like conservation easements can be used to achieve landscape-scale conservation where federal ownership is not a viable solution.

Landscape-Scale Partnerships

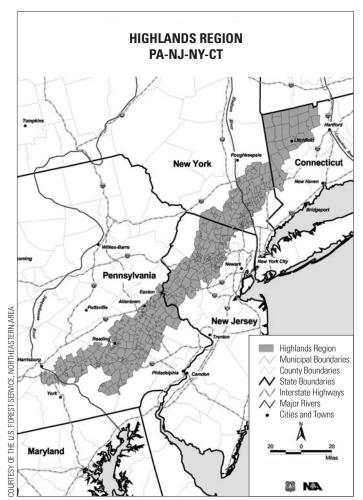
Another important innovation has been the dramatic growth of landscape-scale conservation partnerships, particularly those featuring broad participation across federal, state, and local governments working in collaboration with private groups. While the Weeks Act has always focused on protecting large landscapes at risk, work in recent decades has deepened and adapted collaboration.

rative models to do this work in a more nuanced way.

One example is in the Highlands region, a 3 million–acre greenbelt that stretches from South Mountain, Pennsylvania, through northern New Jersey and New York to the Housatonic River Valley of northwest Connecticut. This slender band of forest is more than pretty scenery: the Highlands' pure waters are a key source of drinking water for more than 14 million people, including residents of New York and Philadelphia, as well as half of New Jersey's residents.

Congress directed the U.S. Forest Service to study the region for its conservation importance and to explore strategies to protect it. The 1992 New York–New Jersey Highlands Study confirmed the significance of these portions of the Highlands region for drinking water, habitat, and recreation in close proximity to more than 30 million Americans. One hundred and twenty different groups commented on the initial findings and helped the U.S. Forest Service develop conservation strategies for the final report.

While some debated the creation of a new national forest in the region as an appropriate response, the private nonprofit Highlands Coalition was formed to move the study's findings into action through any means necessary. The coalition was particularly effective in rallying state and local conservation funding in New Jersey and New York. All seven New Jersey counties in the Highlands created local funding for conservation—a critical match to the New Jersey Department of Environmental



The Highlands region, a 3 million–acre greenbelt that stretches from Pennsylvania through New Jersey and New York to Connecticut, is a key source of drinking water for more than 14 million people.

Protection's Green Acres funding program. The coalition also reached out to groups in Pennsylvania and Connecticut to advocate for a truly landscape-scale conservation strategy in the Highlands.

The signature accomplishment during this period was the protection of Sterling Forest in 1998. This pristine 20,000-acre tract in New York's portion of the Highlands contains important public water supplies for both New York and New Jersey and includes a beloved section of the Appalachian National Scenic Trail. When intensive residential and commercial development was proposed for the property, the private nonprofit Trust for Public Land led an effort in partnership with the federal government, the states of New York and New Jersey, and private funders to amass more than \$62 million to purchase the land for public ownership. Sterling Forest is now a popular New York state park and a vital source of clean drinking water for this crowded region.

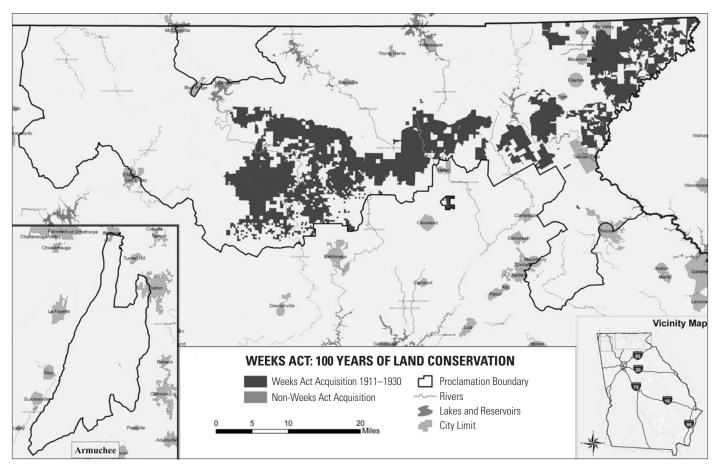
This great conservation victory ushered the Highlands into the national consciousness, and federal interest in the region was reaffirmed through the congressionally directed 2002 NY–NJ Highlands Study Update. The update sounded a more urgent note of alarm that the Highlands' water values and other resources were at risk from nearby development that was converting 5,000 acres of forest per year in the New York and New Jersey Highlands alone.

Once again, as in 1992, the U.S. Forest Service used its research to convene public conversations across the region and to help frame the need and strategies for action. Using this federal leadership as a springboard, the Highlands Coalition accomplished even more. In 2004, the coalition secured major victories, including the passage of the federal Highlands Conservation Act that authorized allocation of \$100 million in federal funds over 10 years to fund state-led projects in the Highlands. The bill also authorized \$10 million over 10 years for U.S. Forest Service technical assistance. This confirmed the model of Sterling Forest—creating an enduring mechanism to direct federal funds to help fund state-led landscape conservation in the Highlands.

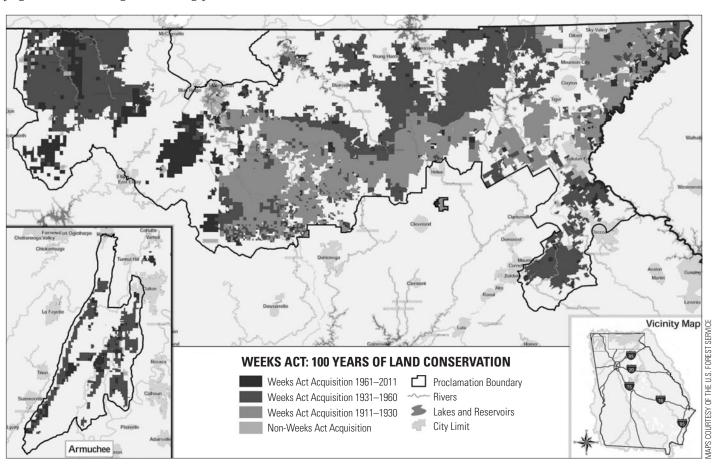
The other major innovation of the Highlands Conservation Act was to expand the definition of the Highlands to include Pennsylvania and Connecticut. The Forest Service completed an expansion of the Highlands Study to include lands in those states, which are both also eligible for Highlands Conservation Act funds.

At the same time that the Highlands states were gaining this commitment from the federal government, they increased their own state-level commitments. New Jersey, for example, passed the Highlands Water Protection and Planning Act in 2004 to place significant land use restrictions on the most sensitive water supply areas across its portion of the Highlands. The legislation also created the Highlands Commission to oversee conservation efforts in the region and to work with local governments. The state has backed this commitment with sustained allocations of its Green Acres conservation funds to the Highlands, including funds from the new \$400 million conservation bond measure approved by New Jersey voters in 2010.

The Highlands work continues unabated today in all four states, thanks to continued partnership from the U.S. Forest Service and other federal agencies as well as unwavering commitment from all four state governments, local governments, and private partners. It is a model that expresses the highest order of what section 2 of the Weeks Act establishes as its aspiration—true federal-state partnership at the landscape scale.



The checkerboard pattern of land ownership in the Chattahoochee National Forest has been erased some over the decades but remains both fragmented and a management challenge for the Forest Service.



LOOKING FORWARD: AN UNCERTAIN FUTURE

While it is energizing to look back at these remarkable accomplishments, the most pressing questions center on what lies ahead. Certain trends suggest that eastern forests might have reached a conservation apex, and the continued resurgence of these lands is far from certain. For example, U.S. Forest Service research predicts that six national forests in the east will see more than 25 percent of private lands within a 10-mile radius undergo development. If the work of the Weeks Act is at such risk of being undermined, how can it be carried forward?

Completing Eastern National Forests

To the surprise of many, the work of establishing the eastern national forests is not done. After all, a cursory look at many maps, including most roadmaps, shows a wide swath of uninterrupted green across eastern national forests. In fact, all that green is merely a reflection of the proclamation boundary: the area in which the federal government is authorized to purchase additional land for that national forest. The actual federal ownership within the proclamation boundaries of most eastern national forests is far below the total acreage authorized for purchase, in many cases 50 percent or less. The highly parcelized Chattahoochee National Forest is a striking example, as shown in the maps on the previous page that illustrates Weeks Act-related conservation over the past hundred years. Such fragmented public ownership means that in many cases the watersheds and other key features for which the national forest was created are not fully protected. Additionally, it leaves many parcels of national forestland isolated by private inholdings, resulting in higher management costs for the agency and other challenges.

Fortunately, the federal government and private partners are working to secure many important national forest inholdings, like the Rocky Fork tract in the Cherokee National Forest. This 10,000-acre tract is adjacent to federal wilderness and has outstanding resource and scenic values. The parcel was once so remote that it was not a candidate for development, but now it is easily accessible thanks to a new interstate highway built across the Southern Appalachians. The Conservation Fund, a private nonprofit organization, is working with the U.S. Forest Service to fill this gaping hole in the Cherokee National Forest through federal acquisition of the Rocky Fork tract.

In fact, most eastern national forests still have active acquisition programs to fill in these kinds of holes. Far from seeking dramatic new expansion of the national forest, this work is most often about consolidating federal ownership around the most essential natural resources in a way that allows for rational and efficient management.

The barriers to success most significantly center on money and priorities. Total federal appropriations for LWCF have been very inconsistent in recent decades, limiting the agency's ability to make key additions. In fiscal year 2011, the agency had only \$23 million for acquisitions and purchase of "critical inholdings" nationwide.

Further, there is a long-standing tendency for the agency to place more emphasis on consolidating its more expansive national forest holdings in the west. In recent decades far more of the agency's acquisition funding has gone to national forests in the west than the east. In the president's budget for fiscal years 2011 and 2012, only two of the U.S. Forest Service's top ten acquisition projects were in the east. In an era of tight budgets, this low

priority has impacts. Only one national forest acquisition in the east would be funded in fiscal year 2011, and there are limited prospects for more than two eastern national forest projects to gain funding in fiscal year 2012.

Beyond National Forest Boundaries

Looking past what the federal government can protect through acquisition, there are other significant opportunities and questions. Landscape-scale partnership efforts like the Highlands and funding for the widespread use of conservation easements remain vital strategies. Strong partnerships and projects based on these models are currently lined up across the eastern forests.

The issue again is significantly about money. While much can be accomplished through donated easements, most substantial forest conservation easements must be purchased. This in turn requires sustained funding from sources such as the Forest Legacy Program, state programs, private foundations, and individual donors.

So far, eastern forest conservation has been able to succeed even through the current economic downturn. However, the new level of funding cuts being considered (and in some cases implemented) at the federal and state levels could imperil these efforts. Success in leveraging millions of private dollars for conservation has often been driven by the availability of federal and state matching funds that pay the lion's share of project costs. It is unlikely that private donors could come close to making up the substantial cuts proposed for the Forest Legacy Program or the permanent elimination of state funding programs such as New Hampshire's Land and Community Heritage Investment Program.

America has once again reached an important crossroads in its conservation legacy. The groundwork has been laid for another century of progress, but that progress is not assured.

Perhaps the most sobering statistics for eastern forests come from the U.S. Forest Service's series of reports *Forests on the Edge*. According to the latest report, 57 million acres of America's private forests are projected to see increased development by 2030. The report goes on to identify the 15 most-threatened watersheds in the nation—every single one is in the East.

The eastern forests have never quite reached the nationally iconic status of America's western lands but are nevertheless equally important to the national interest. One hundred years ago, visionary legislators and citizens came together in recognition of this fact and produced a conservation success story for the ages. Despite the impressive eastern forest conservation already achieved, from the Weeks Act's passage to the present, an effort of similar scale likely lies ahead to overcome the forest threats and challenges of a new century.

Jad Daley is director of the Climate Conservation Program and Martha Wyckoff Fellow for The Trust for Public Land.

NOTES

 Susan M. Stein, et. al, Private Forests, Public Benefits: Increased Housing Density and Other Pressures on Private Forest Contributions. Gen. Tech. Rep. PNW-GTR-795. (Portland, OR: USDA Forest Service, Pacific Northwest Research Station, 2009), 13.