Connecting Humans and Nature: The Appalachian Trail Landscape Conservation Initiative

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Let us assume the existence of a giant standing high on the skyline along these mountain ridges, his head just scraping these floating clouds. What would he see from this skyline as he strode along its length from north to south? (MacKaye 1921)

History and background

HIKING THE APPALACHIAN TRAIL (A.T.) isn't just a walk in the woods—it's an experience that embodies an environment linking the majestic Appalachian Mountains to the human land-scapes of the eastern cities. These linkages were at the heart of Benton MacKaye's original vision for the Appalachian Trail. MacKaye, the regional planner and forester who first conceived of a long-distance hiking trail connecting the skyline of the Appalachian Mountains (Figure 1), wrote about planning at the large landscape-scale as early as 1921.

The Appalachian Trail is conceived as the backbone of a super reservation and primeval recreation ground ... its ultimate purpose being to extend acquaintance with the scenery and serve as a guide to the understanding of nature. (MacKaye 1921)

The landscape surrounding the world-famous A.T. connects rural communities and working farms and forests, squeezes through rapidly developing regions, and provides the foundation for outdoor recreation and tourism opportunities. Since the trail's conception and earliest construction, the iconic viewsheds, precious natural resources, and cultural heritage that surround it have been linked to enhance the A.T. hiking experience.

MacKaye pictured conserving "a crucial portion of our original primeval America" and helping people experience this natural world "despite the inroads of a metropolitan



Figure 1. Benton MacKaye in the Smokies (undated photo).

civilization." His "vision" was rapidly embraced by other conservation leaders early in the 20th century: a long-distance footpath that would allow people to "conserve, use, and enjoy the mountain hinterland which penetrates the populous portion of America from north to south..." (MacKaye 1921).

The remarkable men and women who embraced this vision and built the A.T. were ahead of their time. The A.T. connected existing trails and blazed new ones, slowly weaving together a continuous footpath that traversed the Appalachian range. The route was finalized in 1937, and the first through-hiker walked its entire length in 1948. The A.T. experience steadily grew in popularity and American lore. The trail was designated as a unit of the national park system and one of the country's first national scenic trails in 1968 (National Trails System Act of 1968, Sec. 5 {16 USC 1244}, n.d.)

In 1974, the Appalachian Trail Conservancy (ATC) commissioned a greenway study in conjunction with the organization's 50th anniversary. Ann Satterthwaite, author of the report, recommended the development of a broad landscape in direct relationship to Benton MacKaye's original vision. Satterthwaite called her recommendation "An Appalachian Greenway" (Satterthwaite 1974). The Appalachian Greenway was endorsed by the ATC Board of Managers and membership in 1974. But the proposal faded as ATC turned its attention to completing protection of the A.T. footpath itself—a critical need that Satterthwaite called out in her report.

Over the next 30 years a concerted effort was made to purchase and protect permanent public access along the entire length of the A.T. This work has resulted in one of the most significant and successful land conservation programs in the history of the United States.

Today, there is a 280,000-acre "green ribbon" along the A.T. that connects significant federal and state conservation lands of the eastern United States. Nearly 100 percent of the 2,190 miles of the world's most famous and popular long-distance hiking trail is within a protected passageway that, in most places, extends at least 500 feet on either side of the trail.

The need for landscape-scale conservation along the A.T.

Beyond the protected trail corridor, many of the viewsheds, watersheds, and areas of natural and cultural significance remain unprotected and vulnerable to external threats as our human footprint continues to grow (Figure 2). These threats include incompatible commercial development, suburban sprawl, habitat fragmentation and destruction, inappropriately sited energy development facilities, and noise pollution. These ever-expanding impacts pose long-term implications for those visiting the Appalachian Trail and the diversity of conservation resources surrounding it.

The Appalachian Trail was never intended to be a narrow corridor squeezing through increasingly developed and degraded regions of the East Coast, crisscrossed with utility lines, dotted with wind towers, and invaded by the smells and sounds of urban life. Instead, the vision was for a wide conservation greenway that protects nature and the experience of hiking through nature for all to enjoy: as MacKaye told a 1933 ATC Conference, "a realm and not merely a trail marks the full aim of our efforts." Now, nearly 100 years after Benton MacKaye's vision, one-third of the nation's population is within a day's drive of the A.T. It is estimated that more than 3 million people hike on a portion of the trail every year.

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Figure 2. Threatened landscapes of the Appalachian National Scenic Trail.

Both the National Park Service (NPS) and the ATC have identified the vulnerability of the narrow trail to the impacts of escalating landscape fragmentation and degradation, and the critical need to work more proactively to address the trends that cause "major impacts on the Trail's viewsheds, soundscapes, ecological systems, and cultural resources" (NPS 2015).

The convergence of landscape, culture, and community

The long linear footprint of the A.T. provides opportunities to connect a broad and diverse spectrum of conservation resource values. The trail spans 14 states, 8 national forests, 6 national park units, 2 national wildlife refuges, 24 wilderness areas, 8 national natural landmarks, 3 national historic landmarks, approximately 60 state protected areas, 88 counties, 168 townships and municipalities, and many other protected areas. The A.T. and its surroundings transcend traditional boundaries and jurisdictional designations. This interconnectedness provides the foundation to showcase some of the richest and most significant ecological, scenic, cultural, historic, and recreational values of local communities stretching from Georgia to Maine.

The A.T., threading the spine of the Appalachian Mountains, has stood as a land-scape-scale conservation project for nearly a century. In addition to the highly successful 30-year campaign to protect the A.T. footpath, there have been many outstanding examples of public and private entities working to conserve high-priority resources along the trail and its surrounding landscape. The Appalachian Trail brand is often used as leverage to gain influence when conservation projects can demonstrate a connection to the trail.

Such conservation success stories date back to the earliest days of A.T. history. Protection of lands along the A.T. and its surroundings has been the focus of some of the nation's leading and most innovative conservation agencies and nonprofit organizations. The work is often complicated and expensive. These efforts have been organized and carried out by local, regional, and national entities.

A few examples of conservation success stories that have benefited the A.T. and its surrounding landscape:

- The Southern Appalachian Highlands Conservancy and the US Forest Service conserved nearly 70,000 acres of the Roan Highlands in Tennessee and North Carolina. The A.T. runs through the heart of the Roan Highlands (Figure 3).
- The Rocky Fork project in Cherokee National Forest protected nearly 10,000 acres.
 This property was a high-priority conservation target since at least the mid-1930s. Multiple public and private nonprofit conservation organizations collaborated to complete this acquisition.
- Another 6,800-acre tract in Cherokee National Forest in Tennessee was acquired to protect an important part of the viewshed as one looks south from Max Patch in North Carolina to Great Smoky Mountains National Park and Davenport Gap. Six miles of the A.T. pass along its eastern ridge top.
- Sterling Forest, a historic land conservation success story, represents the conservation of
 more than 22,000 acres along the A.T. on the New York/New Jersey border, just over an
 hour's drive from New York City.

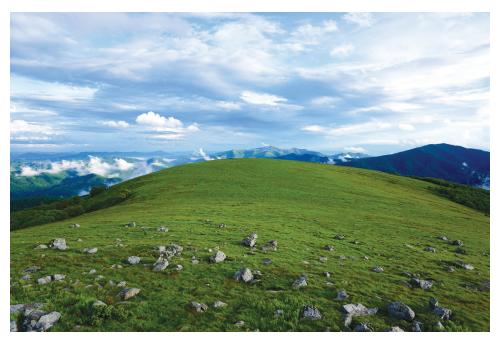


Figure 3. The bald on Big Yellow Mountain in the Roan Highlands of North Carolina. Photo courtesy of Travis Bordley.

In Maine, the state has acquired Nahmakanta Lake, which is now the state's largest designated Public Reserve at more than 43,000 acres, offering backcountry visitors a roadless forest of more than 8,000 acres, a 12-mile stretch of the Appalachian Trail, lakeside and remote campsites, and 24 lakes and ponds with more than 50 miles of combined undeveloped shore frontage.

Many tracts large and small, adjacent to or near the A.T., have been protected since the trail was first constructed. These properties often expanded existing public lands, such as units of the US Forest Service, NPS, state-owned lands, and other conservation areas.

Bringing attention and focus to the next generation of A.T. protection

The Appalachian Trail Landscape Conservation Initiative is an emerging private-public collaboration recently adopted by the ATC and NPS. The initiative is rooted in the trail's earliest beginnings: building on a collaborative partnership of strong local, regional, and national support to safeguard the picturesque vistas, wildlife habitat, streams and rivers, farmlands, and valuable historic sites that are all part of the trail experience and that impact many other landscapes and ecosystems of the Appalachian Mountains. The goal is to look at the entire A.T. landscape as one whole system rather than a long, thin, linear corridor divided by boundaries and jurisdictions. While concerted A.T. conservation efforts in the past focused on the protection of the footpath and a diversity of ecological resources that inhabit the lands immediately adjacent to the trail, this next phase of A.T. land conservation is focused on

broadening the scale of protection. Protecting the resources that enhance the trail experience and making meaningful connections to local communities are two important examples of a broader focus.

The A.T. Landscape Conservation Initiative includes work on climate change mitigation, connecting with cultural and historic resources, and opening up the trail to a wider and more diverse audience. The initiative is working from the trail looking out across the landscape and from the perspective of local communities looking back across the landscape to the trail. As part of the Appalachian Trail Community Program, there are currently more than 40 designated "A.T. communities." The program is designed to recognize communities that promote and protect the A.T. Towns, counties, and communities along the trail are considered assets by all that use the A.T. and many of these towns act as good friends and neighbors to the trail. The program serves to assist communities with sustainable economic development through tourism and outdoor recreation, while preserving and protecting the A.T. and its surrounding landscape.

There is a wealth of cultural resources throughout the Appalachian Mountains that tell the story of America's past. Many examples of this history can be experienced within the land-scape of the Appalachian Trail. Conserving and interpreting cultural and historic resources of national significance enhances a community's sense of place and pride and contributes to economic sustainability. Collaborative efforts are underway to strengthen partnerships with cultural and historic preservation entities working within the A.T. landscape.

A strong public–private cooperative management partnership has guided the construction and maintenance of the Appalachian Trail for decades. ATC and NPS work closely with the US Forest Service, state agencies within the 14 states through which the trail passes, and the staff and volunteers of the 31 A.T.-maintaining trail clubs. The A.T. cooperative management partnership is frequently held up as a model for the management of public lands. More than 7,000 volunteers contributed 210,000 hours of time and labor in 2015 to ensure public access and enjoyment of the trail. This model is recognized in NPS's 100th anniversary *Call to Action* "Scaling Up" initiative (NPS 2014).

The A.T. Landscape Conservation Initiative today

In December 2015, ATC and NPS co-hosted a workshop to launch the A.T. Landscape Conservation Initiative. The workshop, attended by nearly 70 conservation leaders from up and down the trail, served to establish the foundation for partnership-building, initiate the process to identify high-priority target areas, discuss communication strategies to build diversity and engagement among all partners, and consider strategies to access multiple public and private conservation funding sources.

One of the outcomes of the December workshop was a desire to create a vision for the initiative that embraces a refuge for people to fully experience the solitude, quiet, health, spiritual renewal, ecological and cultural richness, and simple beauty of the world around them. Participants expressed a strong desire and support for reaching out to new partners who have not been part of the A.T. cooperative management system in the past.

The long linear nature of the A.T. means that it and its surrounding lands overlay with other landscape-scale conservation initiatives along the Appalachian Mountain chain. There are numerous conservation efforts, public and private, actively targeting and working to conserve high-priority lands of local, regional, and national significance along the full length of the Appalachian Trail. Many of the regional and local landscape programs overlap each other. The A.T. Landscape Conservation Initiative is well-positioned to promote and advance these collaborative efforts that are also looking to gain traction and momentum.

Landscape-scale planning and implementation work taking place up and down the Trail is utilizing a variety of organizational approaches.

- The Regional Conservation Partnership (RCP) Network in New England is one model that includes work within the A.T. landscape. While not on the scale of the A.T. Landscape Conservation Initiative, these regional collaborative efforts are informal networks of people representing private and public organizations and agencies that develop and implement a shared vision across town and sometimes state and international boundaries to increase the pace, scale, and connectivity of their collective land conservation and stewardship activities. Eleven RCPs are working along the A.T. from eastern New York to Maine in places such as the Mahoosuc Range in northeast New Hampshire and western Maine, the High Peaks area of Maine, and the Green Mountains of Vermont (Labich 2015).
- The Chesapeake Conservation Partnership started with a one-off meeting following a
 presidential executive order. The partnership has built a collaborative process structured around a steering committee and working groups focusing on near-term priorities while working to advance long-term conservation goals including mitigation strategies. Nearly one-fourth of the entire A.T. falls within the Chesapeake Bay Watershed.
- The South Mountain Partnership in Pennsylvania encompasses a four-county region that surrounds the trail near the state capital of Harrisburg. An 80-mile stretch of the Appalachian Trail is surrounded by a landscape of elaborate barns, apple orchards, historic sites, and the largest contiguous intact forest between Harrisburg and Washington, DC. A partial list of South Mountain partners includes local historical societies, advocates for hunters and wildlife, tourism bureaus, county and municipal governments, NPS, local and national nonprofit land trusts, ATC, and the Pennsylvania Department of Conservation and Natural Resources. The partnership brings people together across geopolitical and sectorial boundaries to highlight the importance of the landscape and take action to secure its future.
- In rural western Maine, the Trust for Public Land and a coalition of partners engaged local communities through a series of weekend gatherings at local recycling centers, calling them "Dump and Donut" events. TPL used the information gathered at these community events to populate mapping layers highlighting the concerns and priorities expressed by local residents. Many stories were heard about favorite hunting and fishing areas and getaway spots. Not surprisingly, the favorite spots of local community

members matched up with the high-priority areas that popped up by overlaying the most recent scientific data. These results led to a targeted preservation effort that has protected more than 40,000 acres over the past 10 years, and more projects are in the pipeline.

 Examples of other landscape-scale efforts currently underway within the A.T. landscape include the Roan Highlands of North Carolina and Tennessee, the mountains of central and northern Maine, and the Kittatinny Ridge in Pennsylvania.

Each of these efforts brings together willing and interested public and private partners to connect and conserve ecological, cultural, historic, scenic, and community values of the natural landscapes, all benefiting the Appalachian Trail and the local communities through which it passes.

Challenges and learning

While there are endless opportunities to protect a broad diversity of values along the A.T., there have been and continue to be challenges to working effectively to conserve resources along a trail that spans 2,190 miles. These challenges can be impediments to collaboration:

- The numerous sub-A.T. landscape initiatives happening along the long linear trail greenway employ different frameworks for governance, collaboration, and communications.
- Legal boundaries and jurisdictional designations often result in focused efforts that do
 not benefit a large landscape approach. Geographic distances can create "silos" that
 limit the power and potential of collaborative work.
- Local, state, regional, and national conservation projects frequently compete for limited public funding.
- Private nonprofit conservation organizations also compete for limited private dollars.
- Collaborative planning along a long linear greenway is challenging to coordinate.
- Effective communication strategies often strain organizational capacities of both public and nonprofit organizations.
- Conservation organizations have to balance competing priorities—few organizations focus on just the A.T. landscape.
- Community engagement and outreach is costly and time-consuming. Process can be overruled by opportunity windows created by funding availability and landowner readiness.

Lessons that are emerging from recent conservation efforts along the A.T. suggest that landscape-scale work is about much more than enlarging the area of geographic focus. Successful conservation on such a grand scale requires a shift in thinking about the scope of resource values and the depth of community engagement. A fully integrated landscape consists of a combination of natural, economic, ecological, cultural, and recreational values. Working

lands, wild areas, and community settlements are all part of a sustainable environment. A successful landscape-scale approach demands an inclusive, participatory process.

ATC and NPS are engaging with key governmental, conservation and community partners in developing a strategic vision to build on the protected A.T. footpath and corridor. A steering committee has been formed to support the development of a vision for the A.T. landscape and to identify high-priority target areas worthy of public and private conservation investments. Identifying the highest-priority viewsheds, watersheds, and ecological corridors within the A.T. landscape, and building strong local coalitions that share these goals, are key to the success of the A.T. Landscape Conservation Initiative.

The initiative is bringing together the expertise and funding capacities of organizations, communities, and public agencies along the A.T. A current conditions analysis is underway to collect and map all known data and complete a comprehensive inventory of current initiatives and organizations working within the A.T. landscape. All of this is important to support collaborative planning and coordination.

The multi-jurisdictional complexity of the A.T. requires a large landscape conservation strategy which involves commitments from a variety of stakeholders. The demographics of those who are hiking and enjoying the trail are changing. ATC and NPS are promoting programs to educate and encourage younger and more diverse audiences to visit and enjoy the A.T. and its surroundings. Increasing numbers of civic and community organizations, church groups, public and private schools, and colleges and universities are using the A.T. as an outdoor classroom to introduce children and young adults to the natural world. These visitors are gaining access to and experiencing more than just a recreational resource. They are being introduced to a wide range of natural and cultural values. Community engagement that promotes understanding and incorporates the priorities of these diverse constituents will be critical to the long-term success of the A.T. Landscape Conservation Initiative.

ATC and NPS have laid the foundation to build on the existing A.T. cooperative management system. ATC, NPS, and conservation partners up and down the trail are embracing a landscape-scale approach that requires inclusive community participation, including a diversity of stakeholders and participants. New partnerships are emerging with constituents not traditionally involved in A.T. management and protection. ATC recently established a Next Generation Advisory Council, a group of young, diverse and up-and-coming conservation leaders who are working together to promote and share their appreciation for what is most valuable in experiencing the A.T. and its surroundings. These new partnerships are creating strong local, regional, and national support to safeguard the diversity of conservation values that symbolize the A.T. landscape.

MacKaye's "greenway" concept that was later promoted and embraced by Ann Satter-thwaite and the ATC Board of Managers never fully caught hold. Individual land acquisition projects resulted in very important conservation outcomes, but a fully integrated approach was still waiting to happen. Today, ATC and NPS have taken steps to implement the dreams of these early visionaries. The A.T. Landscape Conservation Initiative is embedded in the recently adopted strategic plans of both organizations (ATC 2014; NPS 2015) Organizational

resources are being dedicated specifically to a comprehensive and collaborative approach to promote and enhance land conservation efforts outside of the footpath and its surrounding corridor for the first time in the trail's history. And land conservation professionals around the country are seeing and experiencing the benefits and successes of collaborative land-scape-scale conservation work. Now is the time to embark on this next generation of protection of the Appalachian Trail experience.

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