

TESTIMONY

“Expanding Access to Federal Lands for People with Disabilities”

Committee on Natural Resources
Subcommittee on National Parks, Forests, and Public Lands
United States House of Representatives

July 24, 2008

Dear Mr. Chairman and Members of the Subcommittee:

My name is David N. Startzell and I am the executive director of the Appalachian Trail Conservancy (ATC). I have been asked to serve as a witness today to discuss the issue of access for persons with disabilities to outdoor environments, especially those administered by the various Federal land-management agencies, and to share some examples from my organization’s experience in designing and constructing accessible trail segments and overnight camping areas along the Appalachian National Scenic Trail (ANST), even in some rather challenging and remote environments.

By way of background, the Appalachian Trail Conservancy (formerly known as the Appalachian Trail Conference) is a private, nonprofit, educational organization founded in 1925 to coordinate private-citizen as well as public-agency efforts to design, construct, and maintain the Appalachian Trail and to conserve and manage adjacent lands and resources. ATC has a membership base of approximately 37,000 individuals and also is a federation of 30 affiliated hiking and outing clubs throughout the eastern United States, each of which maintains an assigned segment of the trail.

The Appalachian Trail is a 2,176-mile footpath extending from Maine to Georgia through 14 states generally following the ridgelines and major valleys of the Appalachian Mountains range. The A.T., as it is known, was initially constructed between 1923 and 1937 and has existed as a continuous long-distance footpath since that time. In 1968, the trail received Federal recognition through the National Trails System Act as the nation’s first national scenic trail and today is administered as a unit of the National Park System. Notwithstanding its Federal status, from its earliest beginnings, the Appalachian Trail and its associated facilities (e.g., bridges, shelters, privies, signs, etc.) has been constructed and maintained largely by a corps of dedicated volunteers that today numbers more than 6,000 individuals who, each year, devote approximately 200,000 hours of labor on a wide range of trail-, resource-, and visitor-management programs and services.

With respect to the issue before the Subcommittee today, it should be noted that the Appalachian Trail Conservancy has considerable experience, both with the accessibility guidelines that have been under development by the U.S. Architectural and Transportation Barriers Compliance Board (aka- Access Board) and with the “real world” implementation of those guidelines in the field at various points along the Appalachian Trail. Two representatives of the Conservancy—myself and also Peter Jensen, a former member of our board—served as an alternate and as a member, respectively, on the Regulatory Negotiation Committee that was established by the Access Board in 1997 to explore the development of appropriate guidelines for outdoor developed areas. More recently, representatives of ATC also actively participated in the formulation of the USDA Forest Service’s guidelines, including the Forest Service Trail Accessibility Guidelines (FSTAG) and the Forest Service Outdoor Recreation Accessibility Guidelines (FSORAG), which were adopted by that agency in 2006.

Since the late 1990s, ATC and its affiliated clubs have strived to apply the emerging guidelines in a number of areas along the Appalachian Trail, including a number of significant trail-reconstruction projects where accessible segments and/or facilities have been successfully incorporated into the design. ATC also has provided training to members of its staff and to volunteers within our affiliated-club network about the Forest Service and Access Board guidelines and related issues and has developed a design guide: *Increasing Opportunities for Access on the Appalachian Trail*, drawing on a number of case studies.

With reference to the proposed guidelines, our participation in the Access Board's regulatory-negotiation process proved to be illuminating. As an outgrowth of that participation, we fully appreciate the challenges faced by the Access Board and by the Federal land-managing agencies in attempting to develop an overarching framework for the application of accessibility guidelines in outdoor environments. We also gained a heightened appreciation for the challenges faced by persons with disabilities in attempting to access outdoor environments. Initially, during the early stages of the regulatory-negotiation process we, along with a number of the Federal agency representatives, tended to favor the application of different standards based on physical characteristics or setting (e.g., front country/back country, Recreation Opportunity Spectrum or ROS classifications). Ultimately however, we joined the majority of our colleagues on the committee in embracing the so-called "exceptions-based" approach reflected in the committee report and in the current draft guidelines. Our reasons were two-fold: (1) The exceptions-based approach appeared to offer the greatest opportunity to infuse accessible design into the trail-design and -construction decision-making process; and, (2) an exceptions-based approach seemed less arbitrary than some other approaches (e.g., mandated percentages) and also permitted reasonable flexibility to the designer or land manager to adapt to the prevailing conditions of the setting. The experiences we have gained in the intervening years since the regulatory-negotiation process in applying an exceptions-based approach have supported this conclusion.

During the regulatory-negotiation process we did, however, strongly advocate for several of the four conditions for exception incorporated in the current draft guidelines and we continue to support those conditions as both reasonable and essential in order to adapt to the widely varying conditions encountered in outdoor versus built environments. Consider, for example, Condition 4, which permits exceptions from the technical provisions of the guidelines where compliance is not feasible and/or practicable due to physical characteristics of the terrain or due to prevailing construction practices. Such flexibility is essential in many "backcountry" areas and along many trails where trail segments often are located in remote areas and where physiographic characteristics of the recreational setting can impose significant constraints. Also, while many trails are situated on Federal lands, many of them are constructed and maintained not by Federal-agency personnel but rather by volunteers who rely on hand tools far more than mechanized or motorized equipment and who, for the most part, make use of native soil and other materials (e.g. stone, logs) rather than imported materials.

ATC also supported the limitations on the applicability or "scope" of the guidelines solely to trails or trail segments connecting to designated trailheads or to other accessible trail segments.

Since the regulatory-negotiation process, ATC has applied the emerging guidelines to a number of trail-reconstruction projects in each region of the Appalachian National Scenic Trail and those projects have resulted in meaningful recreational opportunities in a variety of settings for persons with disabilities—particularly those with mobility impairments. Some examples of a number of those projects may help illustrate some of the challenges as well as opportunities that exist along long-distance and/or backcountry trails in general.

Falls Village, Connecticut: This was the first trail-reconstruction project undertaken by ATC and the Connecticut Chapter of the Appalachian Mountain Club in 2000. The project involved the construction of an approximately 1.1-mile loop trail, a portion of which serves as the Appalachian Trail, along the banks of the Housatonic River. Unlike most sections of the Appalachian Trail, road access was readily available to the site, which permitted the use of earth-moving equipment (e.g. Bobcat) for the grading work required as well as to transport the gravel surfacing material. Drainage culverts were installed using more traditional construction practices (e.g. volunteers, hand-tools). The extent of grading also was minimized because portions of the trail were situated along the route of a former woods road. The project required approximately two years from design to completion and was accomplished at a cost of approximately \$60,000. A traffic counter installed at the site in 2005 recorded 23,000 visitors along this section in that year.

Pochuck Creek, Vernon Township, New Jersey: Our largest accessible trail-reconstruction project to date, this project involved the construction of more than one mile (6,000 feet) of elevated boardwalk over the largest wetland area along the entire length of the Appalachian Trail as well as the construction of a unique 144-foot suspension bridge over the main channel of Pochuck Creek. Due to the unusually deep and unstable peat soils encountered in this wetland, the boardwalk portion required the use of a support system previously unheard of along the Appalachian Trail: Chance helical piers. The advantage of this anchoring and support system is that the length of the piers can be adapted to a wide range of soil depths. In this instance, some piers were driven to depths of as much as 40 feet. Following many years of planning, the project required more than five years to complete and was carried out almost entirely by volunteers from the New York-New Jersey Trail Conference, other local partners, and several ATC seasonal trail crews. Total costs for the project were approximately \$500,000. This section was opened for public use in 2002.

Thundering Falls, Killington, Vermont: Another wetland-area project, this trail-reconstruction project affected a total of about two miles of the Appalachian Trail, not all of which could comply with accessibility guidelines due to the steep and rocky terrain that rises quickly above the Ottaqueechee River and adjacent wetland. The project did, however, incorporate an accessible segment including 700 feet of elevated board walk, again using the helical-pier system, as well as approximately 500 feet of gravel-surfaced tread leading to the base of the “primary feature”—Thundering Falls, a 100-foot waterfall, the sixth largest in the State of Vermont, situated within the proclamation boundaries of the Green Mountain National Forest. Because motor vehicle access to the site was limited to the far side of the wetland area, most construction materials were transported to the site by hand or push cart while gravel-surfacing material for the land-based portion of the project was transported via drywall buckets using an elaborate system of cables and winches spanning hundreds of feet down a steep hillside. The project required three years to complete and was constructed primarily by volunteers and seasonal employees of the Vermont Youth Conservation Corps and the Green Mountain Club at a cost of approximately \$200,000. This trail segment was opened for public use in 2007.

Osborne Farm, Shady Valley, Tennessee: Unlike the preceding examples, this project is situated at higher elevations (approximately 3,500 feet) in an open meadow. Total length of the project is .7 mile. The trail tread was excavated to a depth of six inches, lined with permeable geo-textile material, and then surfaced and crowned with a mixture of crushed-rock and rock dust. The trail begins at a parking area/trailhead where a special stile design was constructed in order to permit wheelchair access while discouraging all-terrain vehicle access. The trail gradually rises to the height of land, terminating in a seating area and turn-around, affording sweeping 360-degree views of the surrounding mountain lands including distant views of Mount Rogers in the neighboring Virginia highlands. The stile, bench, and wooden-post trail markers were installed by volunteers while the excavation and surfacing of the trail tread was completed by a contracted trail-construction firm using

mechanized equipment. Total cost, excluding about 120 hours of volunteer and staff labor, was approximately \$20,000. The trail was opened for public use in 2006.

Bear Mountain State Park, New York: This project is still a work-in-progress but ultimately will represent one the largest and most challenging trail-reconstruction projects along the Appalachian Trail in the past two decades, affecting a total of approximately four miles. Initial planning for the project began in 2004 while construction of the first of three phases began in 2006. Situated about 40 miles from New York City, this trail segment is among the most heavily visited sections of the Appalachian Trail, with an estimated 200,000 annual trail visitors and as many as one-half million visitors to the summit of Bear Mountain. Highly technical and labor-intensive tread-construction work is required—much of it involving cutting and placing more than 700 rock steps and drainage improvements (e.g. waterbars, culverts)—often in steep terrain, with limited or no motor-vehicle access. Construction will be carried out through a combination of volunteer and contracted labor. Notwithstanding the challenging terrain, from the initial stages of planning, the designers have sought to incorporate an accessible portion, particularly at the popular summit, which will be the third and final stage of construction. The accessible trail segment will be approximately one-half mile (2,465 feet) in length, extending from an existing parking area accessible by a park road through relatively level terrain with shallow soils and numerous rock outcroppings. Total elevation gain is anticipated to be 1080 feet. Construction costs for the overall project are anticipated to exceed \$1 million, while the accessible portion on the summit is projected to cost approximately \$120,000 (excluding volunteer labor).

Campsites and Associated Facilities: In addition to the above-referenced trail-construction or –reconstruction projects, ATC and a number of its affiliated clubs have constructed or reconstructed perhaps a dozen shelters and privies in the past five to six years designed to meet U.S. Forest Service accessibility guidelines. Campsites associated with the Appalachian Trail generally are sited some distance away (e.g. several hundred feet to as much as one-half mile)--from the main footpath and are connected by a side trail. Campsite facilities typically include a rustic shelter (e.g.-three-sided lean-to) constructed of rock, logs, or dimensional lumber; a toilet enclosure (e.g.-privy); and a water source (usually a natural spring). Such sites also may include a limited number of cleared tent sites and/or tent platforms; a rustic, dry-stone fire ring, and, occasionally, a picnic table. The majority of these designated campsites are not accessible by road and, for this reason, most campsite elements are constructed on-site with native materials or from prefabricated components that can be transported by volunteers or, occasionally, by pack animals or even helicopters. To the best of my knowledge, none of the side trails leading to these sites, or the trails connecting the various campsite elements within these sites, meet current accessible-trail guidelines, nor do they meet the specifications for an “outdoor recreation access route” (ORAR). Many campsites are situated several miles from the nearest trailhead and thus are likely to be beyond the reach of most wheelchair-dependent users.

While there are a wide range of designs among the more than 260 Appalachian Trail shelters, most of them, regardless of construction material, can be adapted to provide improved access for persons with mobility impairments, primarily by providing the correct height and depth to permit transfer from a wheelchair to the sleeping platform. Toilet enclosures or privies require a greater degree of modification in order to provide additional turning space within the enclosure. A ramp also may be required in order to facilitate wheelchair entry and egress. This is particularly true with bin-composting privies, which often require the privy enclosure to be elevated several feet above the prevailing ground surface. For these reasons, the physical “footprint” associated with accessible privies typically is larger than our more common privy designs and special attention must be paid in order to retain a rustic character for these larger structures.

Conclusions: Many characteristics associated with the Appalachian Trail may be fairly representative of many other primitive or backcountry trails. Those characteristics include:

- Limited to non-existent motor-vehicle access;
- Many sections that make use of existing surfaces (e.g. bedrock, talus slopes) or simply are created by foot traffic rather than a constructed trail tread;
- A primitive character with minimal ground disturbance or surface improvements;
- Challenging topographic conditions with frequent and significant elevation gains and losses;
- Limited soil depths and frequent natural barriers;
- Widely variable weather and seasonal conditions;
- Infrequent maintenance intervals;
- Substantial reliance on volunteers for construction and maintenance;
- Limited access to motorized or mechanized equipment;
- Reliance on simple hand tools;
- Limited financial resources;
- Highly variable skill levels and familiarity with accessible design and construction techniques.

Many of these characteristics are likely to severely limit the feasibility or practicability of developing trail segments that meet the letter of all of the technical requirements of the emerging accessibility guidelines. Indeed, many, perhaps most, trail segments are likely to be excluded under the proposed guidelines—either because they do not fall within the scoping provisions of the guidelines or because they qualify under one of the exception provisions related to the technical requirements.

It also should be understood that in many instances a trail constructed to meet accessibility guidelines will be highly inconsistent with the primitive character of most backcountry trails. The reality is that a constructed footpath, four feet in width, with imported surfacing materials, resting intervals, frequent switchbacks to accommodate changes in elevation, and various other modifications required to meet accessibility guidelines will represent a stark contrast to the construction practices commonly employed along backcountry trails and with the primitive, minimalist design philosophy that has guided trails development for many years. For this reason, it is likely that most accessible-trail segments will be developed in less remote areas, proximate to road crossings with developed trailheads, with greater levels of visitation, where the more intensive design standards required for accessible-trail segments are less likely to detract from the primitive character of the trail in more remote settings or with the recreational expectations of trail visitors.

Nevertheless, our experience along the Appalachian National Scenic Trail suggests that it is feasible to provide meaningful opportunities for outdoor recreation for persons with disabilities at selected locations. Over time, as more accessible sections are developed, hopefully it will prove feasible to provide a range of recreational experiences for people with disabilities that are at least representative

of the range of experiences available to non-disabled trail visitors. In addition, even where it is not feasible or practicable to meet the letter of the technical provisions, there often are opportunities to incorporate universal design elements that improve access for people with mobility limitations.

Recommendations: While the conditions encountered along Appalachian National Scenic Trail may be representative of other primitive or backcountry trails, the knowledge and experience gained by the Appalachian Trail Conservancy and its partners during the past ten years in accessible design and construction is *not* representative. As an outgrowth of our participation in the Access Board's regulatory-negotiation process, as well as the development and implementation of the U.S. Forest Service's accessibility guidelines, ATC and a number of its affiliated clubs have cultivated a familiarity with the complexities of this issue that is atypical of many private, non-profit, volunteer-based trails organizations. Indeed, our experience suggests that many employees in the Federal land-managing agencies also lack even a basic understanding of the principles of universal-access design, let alone familiarity with the specific provisions of the emerging Access Board guidelines.

If the Access Board, the land-managing agencies, and the Congress truly seek to expand access for people with disabilities to federally-administered outdoor recreation areas, there must be a stronger commitment, including the allocation of sufficient financial resources, to provide adequate training to appropriate Federal personnel and to their NGO partners.

Similarly, a significant financial commitment may be required in order to compensate for the increased costs associated with many accessible-trail projects. Our experience suggests that the cost implications of designing and building to accessible standards can be considerably greater as compared to our traditional construction costs, primarily due to the frequent necessity to import surfacing materials, to utilize mechanized or motorized equipment, and/or to contract for specialized, professional design and construction services. Moreover, based on our limited experience to date, there are strong indications that accessible-trail segments often require more frequent maintenance intervals in order to maintain a "firm and stable" tread, to maintain appropriate cross slopes and tread widths, and to eliminate protruding objects such as tree limbs or temporary barriers such as fallen trees. At a time when a significant trail-maintenance and trail-construction backlog exists across all Federal agencies, these financial challenges should not be underestimated.

Finally, it should be understood that there may be indirect administrative impacts associated with accessible-trail projects. In addition to the need for training noted above, there also are likely to be increased law-enforcement requirements. The reality is, once a trail is designed to provide improved accessibility to people with mobility impairments—especially wheelchair-dependent visitors—the trail also can become more accessible to other users and uses, including prohibited uses such as all-terrain vehicles, snowmobiles, motorcycles, four-wheel-drive vehicles, and mountain bikes. While there are a number of design techniques that can be employed to discourage such incursions, it nevertheless is likely that an additional monitoring and law-enforcement presence may be required in certain areas in order to discourage adverse impacts to sensitive natural and cultural resources or to the recreational experiences of the users for whom the trail was designed to serve.

Respectfully submitted,



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