

resource protection case study

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APPALACHIAN NATIONAL SCENIC TRAIL



U.S. DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

This report is one of eight case studies designed to explore alternatives for protecting units in the National Park System without relying entirely on direct federal fee-simple purchase of private lands. These studies were undertaken in response to recommendations by the General Accounting Office in recent reports, including *Federal Land Acquisition and Management Practices* (CED 81-135), and a workshop on public land acquisition and alternatives conducted by the Senate Committee on Energy and Natural Resources on July 9 and 10, 1981. The findings and recommendations in this report do not reflect official positions of the National Park Service or the Department of the Interior. Interior Department or National Park Service implementation of any proposals or recommendations discussed in this case study will take place in accordance with departmental planning procedures or legislative review processes.

APPALACHIAN NATIONAL SCENIC TRAIL CASE STUDY
FINAL REPORT

U.S Department of the Interior
National Park Service

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I SUMMARY

A. INTRODUCTION AND PURPOSE OF THE STUDY

The Appalachian Trail case study is one of eight selected by the National Park Service to provide better understanding of alternative approaches to protecting park resource lands. This study has explored the range of techniques used and considered within the Appalachian Trail project and has sought to extract lessons which may be useful to the Service in further Trail protection efforts and in the protection of other important park resources. Special attention has been given to techniques which are cost effective and those which involve other-than-fee transactions.

The Appalachian Trail is internationally-renowned as a footpath extending virtually the full length of the mountainous regions of the eastern seaboard of the United States. It may be the longest continuously-marked recreational footpath in the world and serves as the prototype for long-distance hiking trails in this country and in Europe. It passes through some of the most scenic lands in the East, including 6 units of the National Park System, 8 National Forests and numerous other areas recognized for their national or regional historical, natural or recreational significance. It is easily accessible to much of the most populated areas of the eastern seaboard and is enjoyed by an estimated four million hikers and walkers each year. Millions more read about the adventures of those who walk its full length and take vicarious satisfaction in the knowledge that its challenges and pleasures exist for all to enjoy.

Protection of the Appalachian Trail is one of the most complex projects ever undertaken by the National Park Service. Out of its 2100-mile, 14-state length, 489 miles remain unprotected -- 342 miles less than the unprotected mileage three years ago. The Service shares this protection responsibility with the U.S. Forest Service and several states, and is presently concentrating on 209 unprotected miles in 8 states. Nearly 300 miles of Trail relocations have had to be identified to improve the Trail and satisfy landowners. Protection of the Trail is further complicated by poor ownership records, inadequate surveys and the number of small and partial tracts that are involved.

Despite these difficulties, the Service has been remarkably successful in meeting the Trail protection objectives associated with 1978 amendments to the National Trails System Act, acquiring 600 properties, with a condemnation rate of 2½%, and with projected costs 25% below the authorized ceiling. In addition, less-than-fee forms of acquisition have been used with 12% of the landowners involved in acquisitions to date. Nearly all landowners have had the option of selling easements if they preferred to do so.

The findings and recommendations which follow reflect this positive record. A sturdy partnership of federal and state agencies with private groups, landowners and local citizens has evolved which bodes well for

the future protection and management of the Trail. One conclusion stands out, however -- the viability of the partnership and of the Trail project depends on a continuing federal protection program. For the Trail to remain a cherished part of the American heritage, a continuous Trail, mostly on permanently protected land, must be provided while it is still possible to do so. Without incentives and tools that do not presently exist, the protection task far exceeds the capability of State and private partners.

While a strong federal role is essential in protection, most of the responsibility for management of the Trail and associated land will be assumed by private Trail clubs working in cooperation with state and local government agencies and with existing national forests and national park units. This immense savings in long-term operating costs reflects an extraordinary contribution by private citizens to preservation of a national resource. Like the government/private partnership, this massive commitment by volunteers and their organizations distinguishes the Appalachian Trail from other federal resource protection projects.

B. FINDINGS AND RECOMMENDATIONS

FINDING 1 - PARTNERSHIPS:

The project has made extensive use of cooperative protection and management strategies, involving state and local governments and the private sector. The Park Service protection and acquisition program provides the leadership that makes these cooperative protection and management strategies possible. These alternatives are supplements to rather than substitutes for a federal protection program.

- Experience prior to passage of the National Trails System Act Amendments in 1978 shows that in the absence of a strong Federal commitment state and local governments by themselves are unable to ensure continuity and adequate protection of the Trail.
- The Appalachian Trail Comprehensive Plan indicates that protection of over 30% of the entire Trail is the responsibility of state governments. To date, approximately 384 miles have been protected by states.
- The private sector has contributed very substantially to the protection and management of the Trail. However, it cannot carry the whole burden itself. It was the inability of the private sector to protect the Trail adequately that caused Congress to assume a Federal responsibility for Trail protection in 1968.

RECOMMENDATION:

THE PARK SERVICE SHOULD CONTINUE TO EXECUTE ITS RESPONSIBILITIES FOR PROTECTION OF THE APPALACHIAN TRAIL AS MANDATED BY THE NATIONAL TRAILS SYSTEM ACT.

FINDING 2 - FLEXIBILITY:

The project has demonstrated considerable flexibility, which has enabled it to achieve dramatic cost savings. This flexibility is shown in the use of alternative protection strategies and in the low number of adverse condemnations.

- In 1978 Congress authorized \$90,000,000 for protection of the Trail. The latest estimate of the Project is that the Trail will be protected for \$67,000,000, a savings of \$23,000,000.
- The use of easements has resulted in some cost savings, as have route relocations, donations, and state, local and private cooperation.
- Of over 600 completed negotiations with landowners to date, only 15 have resulted in adverse condemnations, 9 of which have since been settled by additional negotiation.
- Condemnation, used judiciously and only as a last resort, is a necessary part of the protection program.

RECOMMENDATION:

THE PARK SERVICE SHOULD CONTINUE TO SUPPORT THE PROJECT AT A LEVEL OF FUNDING ADEQUATE TO COMPLETE TRAIL PROTECTION IN A TIMELY MANNER. THE POLICY TO CONDEMN LANDS ON A LAST RESORT BASIS SHOULD BE CONTINUED.

FINDING 3 - EASEMENTS:

Easements have resulted in some cost savings. Opportunities for their increased use may be limited because they are not preferred by a majority of landowners.

- It is the policy of the Project staff to offer landowners the choice of selling an easement or in fee.
- Two types of easements are acquired; right-of-way easements and conservation easements.
- 88% of landowners have chosen to sell in fee rather than to sell an easement.
- The cost of easements have averaged about 74% of the fee value.
- The administrative costs of acquiring an easement are higher than those for acquiring fee, because of increased appraisal and legal costs.
- Easements are more complex to manage than lands acquired in fee. The net cost is not known.
- The primary advantage of easements is to retain the participation of interested landowners in Trail stewardship.
- The narrow linear nature of the Trail corridor does not lend itself to easements as the preferred form of resource protection.

RECOMMENDATION:

THE PROJECT SHOULD CONTINUE ITS POLICY OF OFFERING LANDOWNERS THE CHOICE OF SELLING AN EASEMENT OR IN FEE.

THE PARK SERVICE SHOULD CONDUCT A SYSTEMWIDE ANALYSIS OF THE COST EFFECTIVENESS OF ACQUIRING AND MANAGING EASEMENTS.

- One way would be to conduct a detailed analysis of easements in park units with a long history of using them, to determine how their acquisition and management costs compare with those of lands acquired in fee.

FINDING 4 - COOPERATIVE MANAGEMENT:

The Appalachian Trail Project's cooperative management system stands as a model of cooperation between the public and private sectors.

- The Cooperative Management System is used as a model by the North Country Trail and by the Bruce Trail in Canada, and is being used by the American Hiking Society and the Appalachian Mountain Club to further trail efforts around the country.
- Private, volunteer Trail clubs maintain and manage designated sections of the Trail. These private efforts save state and federal agencies more than \$1,000,000 per year.

RECOMMENDATION:

THE PARK SERVICE SHOULD IDENTIFY OTHER FEDERAL AREAS, SUCH AS WILD AND SCENIC RIVERS, NATIONAL RECREATION AREAS, AND PARKS, WHERE THE COOPERATIVE MANAGEMENT SYSTEM COULD BE ADAPTED AND IMPLEMENTED.

FINDING 5 - DONATIONS:

Donations of land or interests in land have achieved some cost savings. Current park service policy does not encourage donations. The project has recently initiated a study of policy changes required to encourage more donations.

- The project has received 2 donations of fee, 15 donations of right-of-way easements and 4 protective easements, with a total fair market value of over \$500,000.
- Donations received to date have come from landowner initiatives.
- It appears that more landowners might donate if they were more fully aware of the benefits of donation.
- Individual landowners, and corporations to an even greater extent, donate not only for tax purposes but also for community recognition and the conservation goals of the AT.

RECOMMENDATION:

THE PROJECT SHOULD CONTINUE ITS INITIATIVE TO INCREASE THE NUMBER OF DONATIONS IT RECEIVES.

- Train NPS planning and acquisition staff to identify those landowners most likely to benefit from donations.
- Encourage lands planning and acquisition staff to point out the tax benefits of donations to potentially qualified landowners.

THE PARK SERVICE SHOULD REVISE ITS POLICIES AND PROCEDURES.

- Revise Park Service policies to encourage lands planning and acquisition staff to educate landowners as to the benefits of donations.

THE ADMINISTRATION AND THE PARK SERVICE SHOULD PROVIDE INCENTIVES FOR
TRAIL DONATIONS.

- Establish a recognition program to give land donors visibility and favorable publicity.
- Recommend a program of tax credits for donations of land for Park Service purposes, to enable lower-income as well as higher-income landowners to derive tax benefits from donation.
- Create a Presidential or Cabinet-level working group of public and private individuals to encourage and publicize corporate Appalachian Trail donations as an example of the President's initiative on volunteer and private sector support.

FINDING 6 - PRIVATE SECTOR:

The project works extensively with the private sector, the Appalachian Trail Conference (ATC) and volunteer trail clubs in planning for and managing the Trail. It has also worked with other private organizations, such as land trusts, in protecting the Trail corridor.

- The Housatonic Valley Association in Connecticut played a very active role in planning the Trail route.
- The Ottauquechee Regional Land Trust in Vermont assisted the Project with pre-acquisition work and is currently soliciting donations of Trail corridor lands.

RECOMMENDATION:

THE PROJECT SHOULD CONTINUE TO INVOLVE PRIVATE, VOLUNTEER CONSERVATION ORGANIZATIONS IN THE PROTECTION AND ACQUISITION OF THE TRAIL CORRIDOR.

- Hold a series of workshops for existing land trusts and Trail clubs to exchange ideas and techniques for private sector conservation strategies.
- Identify other private organizations qualified to work on the Appalachian Trail.

THE PARK SERVICE SHOULD SEEK MORE EXTENSIVE AND SYSTEMATIC COORDINATION WITH LAND TRUSTS AND OTHER PRIVATE CONSERVATION ORGANIZATIONS TO ASSIST IN ACCOMPLISHING PARK SERVICE MISSIONS.

- Develop guidelines to help lands planning and acquisition staff to identify:
 - a) situations where private sector involvement would be advantageous to the government;
 - b) what the working relationship should be between the Park Service and the organizations.
- Enter into written agreements with specific private organizations to clarify roles and responsibilities.
- Recommend changes in tax legislation to give landowners greater incentives to donate lands to land trusts.

FINDING 7 - STATE AND LOCAL GOVERNMENT ASSISTANCE:

Assistance to and cooperation with state governments and, to a lesser extent, local governments, has contributed to very substantial cost savings.

- The States of Maine, Massachusetts, New York, New Jersey, Pennsylvania, Maryland, and Virginia have taken an active role in protecting the Appalachian Trail within their borders.
- The state protection role depends on the federal commitment to the Trail through financial and technical assistance. Without federal support, many of the state protection efforts may be reduced.
- \$77,000 in federal pre-acquisition assistance, such as title research and surveying, provided the leverage for expenditure of \$4,000,000 in State acquisition of Trail corridor lands in N. J.
- Local government assistance is provided through cooperative agreements. The Town of Damascus, Virginia donated a hiker-biker route through the town. The Borough of Hamburg, Pennsylvania donated a right-of-way across nine miles of Borough watershed lands.

RECOMMENDATION:

OPPORTUNITIES FOR INCREASED STATE EFFORTS IN TRAIL PROTECTION APPEAR LIMITED. HOWEVER, THE PROJECT SHOULD CONTINUE ACTIVELY TO SEEK THE COOPERATION OF STATE AND LOCAL GOVERNMENTS.

- Continue to provide technical planning assistance and support services to offer an incentive to local governments to assist in Trail protection.
- Provide the Appalachian National Scenic Trail Advisory Council (ANSTAC), a group of government and private group representatives and individuals who advise the Secretary on Trail-related matters, an opportunity to review and comment on the case study.

THE PARK SERVICE SHOULD SEEK AUTHORITY TO PROVIDE GRANTS TO STATES ON A MATCHING BASIS FOR TRAIL PROTECTION.

FINDING 8 - ZONING:

State and local governments have used zoning on a minimal basis for Trail protection. Zoning is more appropriate for adjacent lands than for protecting the Trail corridor.

o The State of Maine and three local governments, Carrabassett and Caratunk, Maine, and Warwick, New York, have used police power regulations to help protect the Appalachian Trail. Maine has zoned the Trail a Recreation Protection Subdistrict, as part of its zoning for unorganized areas of the State. Although the adoption of such police power regulations can be of extreme importance in protecting the established Trail corridor, the Solicitor's Office has determined that these regulations do not constitute permanent protection.

o State and local zoning, although not a substitute for actual acquisition of the Trail right-of-way, can have an important role in the development of cooperative agreements with regard to the management of private and non-private lands adjacent to the Trail.

RECOMMENDATION:

THE PARK SERVICE SHOULD ENCOURAGE STATE AND LOCAL GOVERNMENTS, PERHAPS WITH THE USE OF TECHNICAL PLANNING ASSISTANCE OR OTHER FORMS OF INCENTIVES, TO ZONE OR OTHERWISE REGULATE LANDS ADJACENT TO THE APPALACHIAN TRAIL CORRIDOR FOR COMPATIBLE USES.

- State governments using existing federal and state programs could make planning grants available to Trail clubs and, where appropriate, to local governments to address the protection of lands adjacent to the Trail corridor.

THE PARK SERVICE SHOULD SEEK TO REDUCE SYSTEMWIDE PROTECTION PROBLEMS THROUGH INCREASED COOPERATION WITH STATE AND LOCAL GOVERNMENTS.

- Seek authority to provide state and local governments with financial and technical planning assistance to zone or otherwise regulate land uses adjacent to park areas.

FINDING 9 - H.R. 861:

Certain changes in the National Trails System Act would allow the project to carry out its mission in a more cost-effective manner.

- Volunteer efforts by private clubs in operation, maintenance, and development of the Appalachian Trail currently save state and federal agencies more than \$1,000,000 annually. Proposed legislative changes in H.R. 861 would enhance these efforts.
- The project currently has no strong incentive to engage in cost saving techniques such as selling off excess lands outside the Trail corridor or leasing corridor lands for compatible uses such as pasturage, because the proceeds from sale or lease do not return to the project account.

RECOMMENDATION:

THE PARK SERVICE SHOULD CONTINUE TO SUPPORT THE PASSAGE OF H.R. 861.

- Seek amendment of H.R. 861 to allow the project to acquire legal access to landlocked parcels of surplus land which are currently accessible only to adjacent landowners.

FINDING 10 - PARK SYSTEM REPRESENTATION:

Future protection of the Appalachian Trail has the potential to fill significant existing representation gaps in the National Park System Plan.

• The Appalachian Trail lies within the Appalachian Range and New England - Adirondacks Natural Regions as defined by the National Park System Plan. These regions, which comprise a diversity of landscape areas reflective of nine physiographic sections, have significant voids and are inadequately represented in the National Park System.

• Unprotected portions of the Appalachian Trail have the potential to fill representation voids for categories of natural phenomena such as mountain systems, works of glaciers, caves and springs, lakes and ponds and boreal and Eastern deciduous forests.

RECOMMENDATION:

THE PARK SERVICE SHOULD IDENTIFY THOSE UNPROTECTED PORTIONS OF THE APPALACHIAN TRAIL THAT FILL EXISTING REPRESENTATION GAPS IN THE NATIONAL PARK SYSTEM PLAN AND GIVE THESE AREAS PRIORITY ATTENTION.

FINDING 11 - PROTECTION PROCESS:

The Appalachian Trail Program is a unique federal initiative because activities are based upon a philosophy that planning, protection and management of this nationally significant area are a shared responsibility among the NPS, USFS, state and local governments, and the private sector.

- The Comprehensive Plan prepared for the Appalachian Trail indicates that state governments have protection responsibility for over 30% of the Trail. To date, 384 miles have been protected by states.
- Thirty federal, state and local government agencies and thirty-one private trail organizations participate in the management of the Trail.
- The Trail program emphasizes the development of trail planning, protection and management strategies which are designed for specific landscapes and tailored to the situation of each area.
- Local government and landowner participation is an essential part of the planning and protection process.

RECOMMENDATION:

THE PARK SERVICE SHOULD SUPPLEMENT EXISTING LAND PLANNING, PROTECTION AND PUBLIC INVOLVEMENT GUIDELINES WITH THE TECHNIQUES USED BY THE APPALACHIAN TRAIL PROJECT OFFICE.

II. HISTORY OF THE APPALACHIAN TRAIL

The original proposal for an Appalachian Trail was put forward in 1921 by Benton MacKaye, a forester and regional planner. He conceived of the Trail as a continuous way, from Maine to Georgia, for travel on foot through the wild, scenic, wooded, pastoral, and culturally significant lands of the Appalachian Mountains. MacKaye's proposal met with an enthusiastic response. Volunteers began marking and cutting the Appalachian Trail in the early 1920s, and by 1937 a continuous trail had been laid out and blazed from Maine to Georgia. The route was selected to correspond to the ridge line of the Appalachian Mountains and to connect existing trail systems. Originally Mt. Washington in New Hampshire, and Mt. Mitchell in Tennessee, the highest points respectively in the north and south, were the planned terminal points. Today the Trail stretches from Springer Mountain, Georgia, to Katahdin, Maine. In 1925 the Appalachian Trail Conference (ATC) was formed to unify and coordinate the efforts of volunteers and hiking clubs to cut, mark, and maintain the A.T. The Conference is the principal steward of the Trail and the interpreter of its purpose and history.

A. PRE-1968 -- SECURING A CONTINUOUS ROUTE

The first requirement for the Trail was to secure a continuous route. Its selection appears to have been influenced more by topography than landownership. Staying on ridge crests, avoiding valleys, and seeking remote locations were the principal criteria. Once a general route was selected, as many as 20 to 30 miles a day would be cut and marked by sturdy Trail enthusiasts.

Handshake agreements were consummated with landowners, often when landowners spotted hiking groups crossing their property. Few problems occurred, as use of the Trail was minimal and conflicting land uses were rare.

In 1938 Appalachian Trailway Agreements were signed by the NPS and U.S. Forest Service (USFS) with the ATC, recognizing the need to protect lands adjacent to the Trail. The agreements established a zone extending one mile on either side of the Trail in National Parks and Forests where no new paralleling roads or other incompatible development would take place. Similar agreements were signed with all Trail states in 1939 providing protection to a zone extending one half mile on either side of the Trail on state lands.

In 1964 legislation was introduced in Congress to recognize the A.T. as serving the public interest and to create greater public awareness of the Trail. The expectation was that more protection for the route would be achieved through greater visibility. This bill stalled, but was eventually re-introduced and stimulated the preparation of a report by the Secretary of the Interior, entitled "Trails for America". The study inspired a revised bill, entitled the National Trails System Act (P.L. 90-543) which was passed in 1968. It authorized the National Park Service to administer the Trail,

established a \$5 million ceiling for land protection, and conveyed eminent domain authority. At the time of passage, it was estimated that the Trail was 2,000 miles long and ownership was broken down as follows:

A.T. Mileage Breakdown*

USFS - - - - -	507 miles
NPS - - - - -	175 miles
States - - - - -	452 miles
Private and Roads - - - - -	866 miles

*From Trails for America.

B. 1968 - 1978 -- BUILDING A PARTNERSHIP

Passage of the National Trails System Act stimulated a refinement of the roles of government agencies and ATC. Memoranda of Agreement between National Park Service and Appalachian Trail Conference and the National Park Service and U.S. Forest Service were signed in 1970, establishing a partnership to protect the Trail. Similar agreements were signed with states and specific A.T. legislation modeled after the National Act was passed by most of the states.

A significant role for ATC in land protection was stipulated in the 1970 Agreements. The NPS/ATC agreement included the following provision:

The Conference will undertake and encourage its member clubs to undertake the acquisition of lands or interests in lands by donation or otherwise (through easements, restrictive covenants, etc.), or to negotiate written cooperative agreements for segments of the Trail that traverse private land holdings.

The National Trails System Act required that the NPS in cooperation with the state develop an official route for the Trail. This was published in the Federal Register in 1971. Also, the NPS prepared aerial photographs identifying the right-of-way (as defined in the legislation) and Guidelines for planning, design, and management of the Trail.

The Act encouraged the states to move first to protect the Trail. It gave them a two year period after publication of the official route during which they could initiate protection programs before the NPS would get involved. New Hampshire, Massachusetts, New Jersey, Maryland and Virginia launched programs to begin planning a permanent route during this period. Additional incentives were later provided

to the states through contingency reserve grants for land acquisition in 1977 and 1978 from Secretary of the Interior Kleppe. Also, an active USFS protection program was initiated within the boundaries of the eight National Forests through which the Trail passes.

Although the foundation of a protection program was developing and a partnership emerging among federal and state governments and ATC and its member clubs, the quality of the Trail route was deteriorating. Growth in the second home development market created competition for remote mountain-top land, and the once serene route of the Trail was being forced onto roads to make way for new houses and roads. Clubs were losing their ability to maintain an off-road route and continuity was broken by 15+ mile roadwalks in northern Virginia, Pennsylvania, New Jersey, and New York, and similar patterns were developing in Connecticut and Massachusetts.

C. 1978 to PRESENT -- PROTECTING A PERMANENT CORRIDOR

Following oversight hearings in the House of Representatives in 1976, Congress amended the National Trails System Act, increasing the NPS authority to protect the Trail. The authorized acquisition ceiling was increased by \$90 million over three years, and the eminent domain authority expanded. The Senate Report on the amendment reaffirmed the partnership between government and Trail clubs and concluded:

"The Committee believes that this cooperation is consistent with the past participation of the various volunteer trails clubs, local citizenry, and the Federal and State governments in locating and maintaining the Trail. The past administration of the Trail has been based on this partnership and it is the intent of the Committee that the future administration of the Trail will continue in this manner. Encouraging the role of volunteers in promoting, and should be continued."

The NPS quickly responded to the mandate of the amendment and developed a corridor planning program and a land acquisition capability. The pace quickened as Robert Herbst, Assistant Secretary of the Interior for Fish, Wildlife, and Parks, pledged that the 300 miles of most threatened Trail would be protected by the summer of 1979. A land acquisition plan was developed, and in an unprecedented move, responsibility for the program was placed under the Project Manager. Extraordinary cooperation and responsiveness was required to maintain flexibility in protecting the resource. To accomplish this, planning and acquisition became intertwined. Relocations were planned where the Trail was poorly located, and the corridor was designed to minimize its impact on adjacent properties. Thousands of landowner contacts were arranged in an effort to individually tailor every section of the Trail. Each owner participated in refining the route and corridor boundaries and selecting the most suitable protection instrument (fee or easement).

Stimulated by the NPS initiative and supported directly through pre-acquisition assistance, state protection programs in Maine, Massachusetts, New Jersey and Maryland were revitalized. The USFS program also broadened its scope and made significant progress towards completing Trail protection within the National Forests. Throughout the 14 states crossed by the Trail, state and local governments assisted in programs to protect the Trail. Local non-profit organizations also participated wherever possible in a truly cooperative effort.

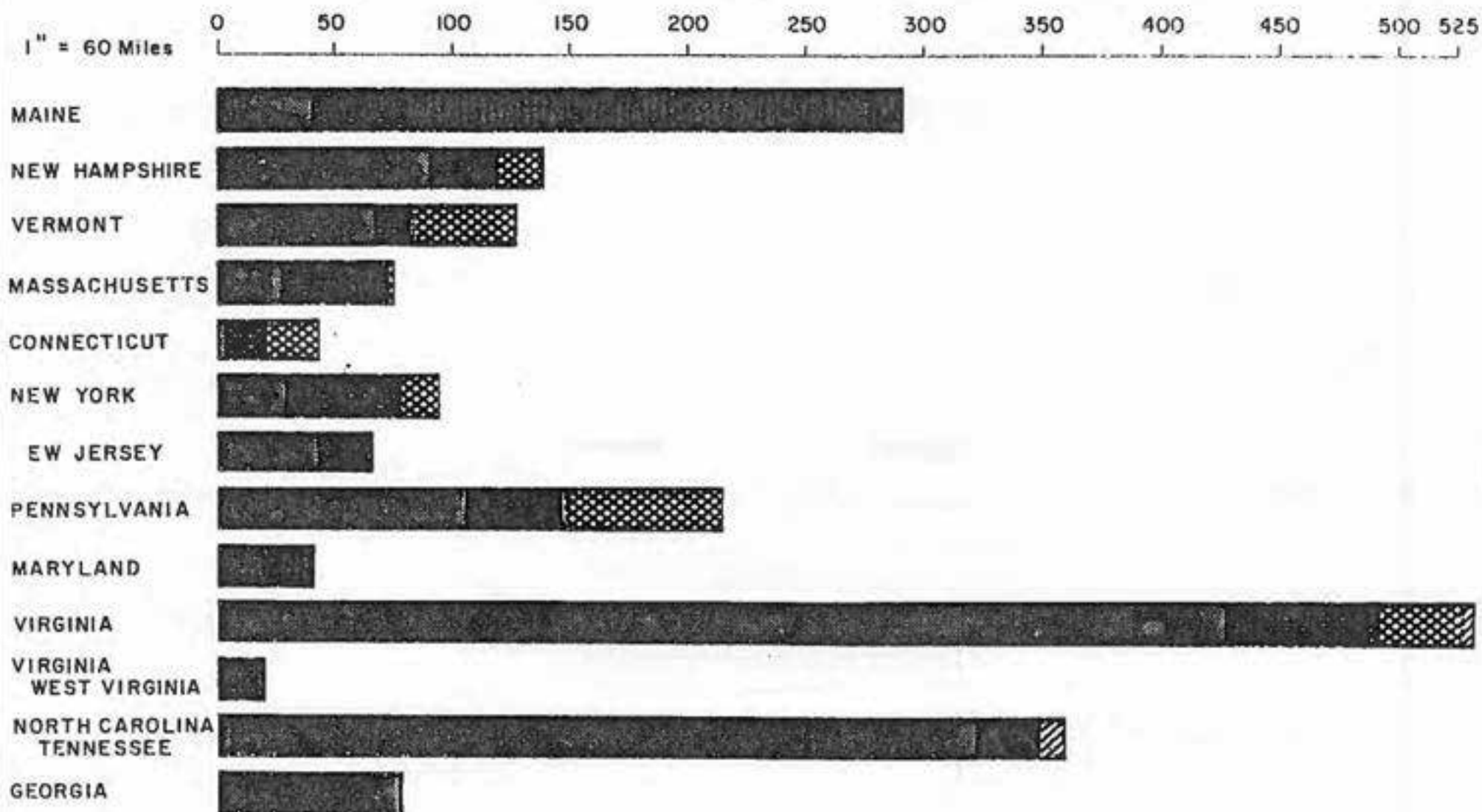
Success of the program is closely tied to the support of the communities through which the Trail passes. The credibility of a Trail club's management program is critical to building public support. Recognizing this, ATC established field offices to strengthen the volunteer network. Local management planning committees were established providing a forum for local participation in management of A.T. lands. Simultaneously, the clubs initiated programs to monitor newly acquired properties and began assuming management responsibilities. A.T. clubs began the transition from independent Trail maintainers to responsive community-linked managers. This broadening of responsibility marks a significant evolutionary step in the history of the Trail and a major innovative effort by government to have organized volunteers manage public lands.

In 1981 the NPS with broad consultation completed a Comprehensive Plan for the acquisition, development, management, and use of the Trail. The Plan established the framework of a cooperative management system for the Trail. This is supplemented by local management plans which develop site specific programs. Cooperative agreements will follow which will detail the delegation of responsibility between the volunteers and government.

The momentum of the protection program has stimulated a maturing of the volunteer effort into a well-organized, responsive network of managers. Also, state participation has solidified and local partnerships have been created, developing a genuine climate of concern for the Trail. The status of the Trail protection effort must be measured not only in terms of miles of Trail acquired, but also in terms of the growth of the cooperative system that assures its future.

APPALACHIAN NATIONAL SCENIC TRAIL STATUS OF LAND ACQUISITION

1/ 31/82



1,255.2 MILES

365.7 MILES

465.3 MILES

PROTECTED THRU FEB. 1978

PROTECTED MARCH 1978 TO PRESENT

UNPROTECTED



STATE



N.P.S.



N.F.S.

III. RESOURCE TO BE PROTECTED

The Appalachian Trail traverses the ridges and highlands of the Appalachian Mountain System—the backbone of the eastern United States—from Maine to Georgia. In the 2100-mile course the Trail crosses or goes through 6 National Parks, 8 National Forests (including several Wilderness Areas), a National Recreation Area, a National Zoological Park, a National Wild and Scenic River, several potential National Wild and Scenic Rivers, National Natural Landmarks, National Historic Landmarks, National Historic Register sites, more than 20 state parks, 17 state forests, 13 state wildlife management areas, and 11 preserves or other public lands.

In addition to threading together an impressive collection of natural, scenic, historic, and cultural resources that have already received national or state recognition and protection, the Appalachian National Scenic Trail itself constitutes an important addition to the National Park System. In 1970 the National Park Service produced the National Park System Plan, to identify gaps or voids in the National Park System's representation of the natural, scenic, and scientific heritage of the United States. The Plan divided the country into natural regions, each characterized by relatively homogeneous physiographic and biologic features. The Plan also categorized all the natural phenomena of the country into natural history themes. These themes are very broad categories, such as Mountain systems, Works of glaciers, Boreal forest, and Eastern deciduous forest. Each region is characterized by a number of themes. The Appalachian Trail passes through two natural regions, the Appalachian Ranges and the New England-Adirondacks. The Plan analyzed the adequacy of representation of the various natural regions in the National Park System and found that the adequacy of representation of the Appalachian Ranges region was 54%; that of the New England-Adirondacks region was 29%. The Appalachian Trail, then, contributes significantly to filling two voids in the National Park System. The Plan further identified for each region certain themes as having prime significance. Within the Appalachian Ranges region the theme of Mountain systems is not adequately represented. In the New England-Adirondacks region the themes of Mountain systems, Works of glaciers, and Boreal forest, all of prime significance, are inadequately represented in the National Park System. The Appalachian Trail can increase the adequacy of representation of these themes in both natural regions, thus contributing to a more fully representative National Park System.

The resource values that Congress intended to protect by the designation of the Appalachian National Scenic Trail are diverse and complex. The language of the National Trails System Act, as amended, does not go into elaborate detail as to the nature of the resources to be protected. The section of the Act designating the Appalachian Trail recognizes the Trail as "extending generally along the Appalachian Mountains from Mount Katahdin, Maine, to Springer Mountain, Georgia." The Act states that insofar as possible the Trail right-of-way shall comprise the Trail as it existed as of the date of the Act, in 1968. The only clues in the language of the Act as to the nature of the Trail are that "the Appalachian Trail shall be administered primarily as a footpath by the Secretary of the Interior, in consultation with the Secretary of

Agriculture," and that the use of motorized vehicles on national scenic trails by the general public shall be prohibited. However, while the Act is reticent as to the exact nature of the resources to be protected by the Trail, certain inferences can clearly be drawn from the history of Congress' involvement with the Trail.

The 1968 Act, in establishing the National Trails System and the Appalachian National Scenic Trail, stated that such trails shall be ". . . so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass." Indeed, it was the encroachment upon the Trail corridor by residential, commercial, and other incompatible forms of development that prompted Congress to assume a federal responsibility for protecting the continuity and quality of the Trail. The 1968 Act authorized acquisition of a permanent right-of-way and provided that not more than 25 acres in any one mile of the Trail could be acquired without the consent of the owner. It also authorized \$5,000,000 for the acquisition of lands or interests in lands.

The inability of the Park Service, Forest Service, the States, and the volunteer Trail community to protect the Trail adequately under the provisions of the 1968 Act led Congress to amend the Act in 1978. The 1978 amendments expanded the authority of the Federal government to acquire private lands, ". . . provided that condemnation proceedings may not be utilized to acquire fee title or lesser interests to more than an average of 125 acres per mile." The amendments also increased the authorization of funds for the acquisition of lands and interests in lands with an additional \$90,000,000. The legislative history of the 1978 amendments sheds further light on Congress' intent. The Senate report accompanying the 1978 amendments states: "Experience with the Trail has demonstrated . . . that additional authority is needed to insure the acquisition of a corridor sufficient to protect trail values." From this language and the ensuing amendments it may be inferred that Congress intended the Appalachian Trail to provide some minimum standards of scenic, historic, natural, and culturally significant experience.

The Appalachian Trail comprises a richly diverse set of resources, transecting not only a number of climatic, physiographic, and ecological zones but also a variety of land uses--wild and forested lands, rural hinterlands, agricultural valleys, and small towns. The continuity of the Trail across 2,100 miles of the eastern United States both dictates and includes this diversity. Congress appears to have intended this sort of variety, in providing that "development and management of each segment of the National Trails System shall be designed to harmonize with and complement any established multiple-use plans for that specific area in order to insure continued maximum benefits from the land." Nonetheless, Congress' authorization to protect a corridor, substantially expanded by the 1978 amendments, suggests that, wherever possible, the Trail should provide a recreational experience in a natural setting. Where that objective is no longer attainable, the Trail should follow the least disturbed and most attractive route possible.

IV. COOPERATIVE MANAGEMENT SYSTEM

The cooperative management system for the Appalachian Trail is based on a recognition that 1) the existence of the A.T. is largely due to a volunteer effort that began 60 years ago, and 2) management of the Trail by a cooperative network of Trail clubs, National Park Service, U.S. Forest Service, state agencies, and other partners is both cost-effective and philosophically appropriate. In particular, the role of volunteers in management has been emphasized by Congress (Senate Report No. 95-636) as one of the Trail's great assets.

Trail management involves more than simple "maintenance" of the footpath. Shelters, privies, signs, and bridges must be provided, and soil erosion on the Trail itself must be controlled. Education of users in low-impact hiking and camping techniques is important not only on the Trail, but off it as well, in classrooms, summer camps, and publications.

In addition, the newly acquired state and federal properties must be protected against those who would take advantage of an absentee public landowner. Through the "corridor monitoring" program, the Trail clubs in cooperation with their local agency partners will regularly inspect the properties and handle problems in accordance with prearranged procedures.

A cooperative partnership arrangement comprising the Cooperative Management System exists for all parts of the Appalachian Trail (see table). Where clubs are small, the agency partners assume greater responsibility; conversely, where clubs are stronger, the role of the agency partners is less extensive. A close working relationship between NPS, USFS, ATC, clubs, and state agencies is the cornerstone of this system.

Because the Trail is more than 2100 miles long, passes through 14 states, crosses nearly one-hundred separate national and state forests and parks, and involves so many different partners, the task of cooperative management is complex and generally does not lend itself to centralized decision-making. For that reason, each of the Trail clubs maintains a "local management plan" for its section of Trail in cooperation with local agency partners. These plans form the foundation on which the decentralized decision-making process is built.

The volunteer role in management of the Appalachian Trail is unprecedented for a major federally-administered recreation facility. This public service by private citizens springs from the history of the Trail and its unique tradition of volunteer initiative.

Participants in Cooperative Management System, by State, as of July 1, 1981

<u>STATE</u>	<u>TRAIL CLUB</u>	<u>GOVERNMENT AGENCY PARTNER</u>
MAINE	Maine Appalachian Trail Club Appalachian Mountain Club	Baxter State Park ME Dept of Conservation ME Dept of Inland Fisheries & Wildlife
NEW HAMPSHIRE	Appalachian Mountain Club Dartmouth Outing Club	NH Dept of Resources & Economic Development White Mountain National Forest
VERMONT	Dartmouth Outing Club Green Mountain Club	VT Agency of Environmental Conservation Green Mountain National Forest
MASSACHUSETTS	AMC, Berkshire Chapter	MA Dept of Environmental Management
CONNECTICUT	AMC, Connecticut Chapter	CT Dept of Environmental Protection
NEW YORK	NY/NJ Trail Conference	NY State Office of Parks & Recreation NY Dept of Environmental Conservation
NEW JERSEY	NY/NJ Trail Conference	NJ Dept of Environmental Protection Delaware Water Gap Nat'l Recreation Area
PENNSYLVANIA	Springfield Trail Club Batona Hiking Club AMC, Delaware Valley Chapter Philadelphia Trail Club Blue Mountain Eagle Climbing Club Allentown Hiking Club Brandywine Valley Outing Club Susquehanna Appalachian Trail Club York Hiking Club Mountain Club of Maryland Potomac Appalachian Trail Club	PA Game Commission PA Dept of Environmental Resources Hawk Mountain Sanctuary (private) Borough of Hamburg
MARYLAND	Potomac Appalachian Trail Club	MD Dept of Natural Resources C&O Canal National Historical Park
VIRGINIA/ WEST VIRGINIA	Potomac Appalachian Trail Club Old Dominion AT Club Tidewater Appalachian Trail Club Natural Bridge AT Club Roanoke Appalachian Trail Club Kanawha Trail Club Virginia Tech Outing Club Piedmont Appalachian Trail Hikers Mt. Rogers Appalachian Trail Club Tennessee Eastman Hiking Club	Harpers Ferry National Historical Park VA Dept of Conservation & Econ Dev Shenandoah National Park George Washington National Forest Blue Ridge Parkway Jefferson National Forest
TENNESSEE/ NORTH CAROLINA	Tennessee Eastman Hiking Club Carolina Mountain Club Smoky Mountains Hiking Club Nantahala Hiking Club	Cherokee National Forest Tennessee Valley Authority National Forests of North Carolina (Pisgah, Nantahala) Great Smoky Mountains National Park
GEORGIA	Georgia Appalachian Trail Club	Chattahoochee National Forest

V. PROCESS

A. NPS AND ATC ORGANIZATION AND RELATIONSHIP

The Appalachian Trail protection program is a cooperative project involving the National Park Service, the U.S. Forest Service, the states crossed by the Trail, local governments, Trail clubs, other federal agencies, conservation organizations, and landowners. While responsibility for overall Trail administration lies with the National Park Service, the goal is to assure adequate management through the existence of a cooperative working arrangement between partners. A series of broad relationships are defined through formal agreements that the National Park Service has with the Appalachian Trail Conference, the Forest Service, the states and other Trail land-managing agencies such as the Smithsonian Institution.

The Appalachian Trail Conference, with over 15,000 individual members, is a private, nonprofit confederation of the 31 maintaining Trail clubs and their affiliates (with a combined membership of 60,000). It assigns Trail sections to clubs, acts as a central clearinghouse for trailwide information, publishes guidebooks, provides technical assistance to clubs, and allows the Trail clubs to speak with a united voice on issues affecting the Trail. There is a paid central office and field staff. The Conference is governed by a Board of Managers.

The Appalachian Trail Project Office, sometimes confused with the Appalachian Trail Conference, is a part of the National Park Service. Headed by a Project Manager, it has the responsibility to see that the requirements of the National Trails System Act for the protection and management of the Trail are fulfilled. The land acquisition function is organized under the Project Manager. Field offices operate in Lebanon, NH, to pursue negotiations with landowners in Maine, New Hampshire, Vermont and Massachusetts; in Allentown, Pa., for negotiations in Connecticut, New York and northern Pennsylvania; and in Martinsburg, W.V., for negotiations in central and southern Pennsylvania, West Virginia and Virginia. The work of these offices is coordinated by the Chief of Land Acquisition for the Project in a separate office in Martinsburg. In practice, the Conference and Park Service work in close partnership with the Forest Service in coordinating the federal and state protection programs and in supporting local management planning efforts.

B. STATE AND FOREST SERVICE ROLE

The Forest Service is acquiring land for the Trail within national forest boundaries, and several states are also acquiring land to protect the Trail. Land acquisition for the Trail in North Carolina, Tennessee and Georgia will be accomplished by the Forest Service, as well as within Forest Service boundaries in Vermont and New Hampshire. The States of New Jersey and Maryland plan to complete Trail protection without direct National Park Service acquisitions. Maine and Massachusetts are also maintaining significant protection programs for

the Trail, while some additional State acquisitions are expected in Pennsylvania. The National Park Service role is to fill in the gaps to assure a permanent, protected route for the Trail for its full length.

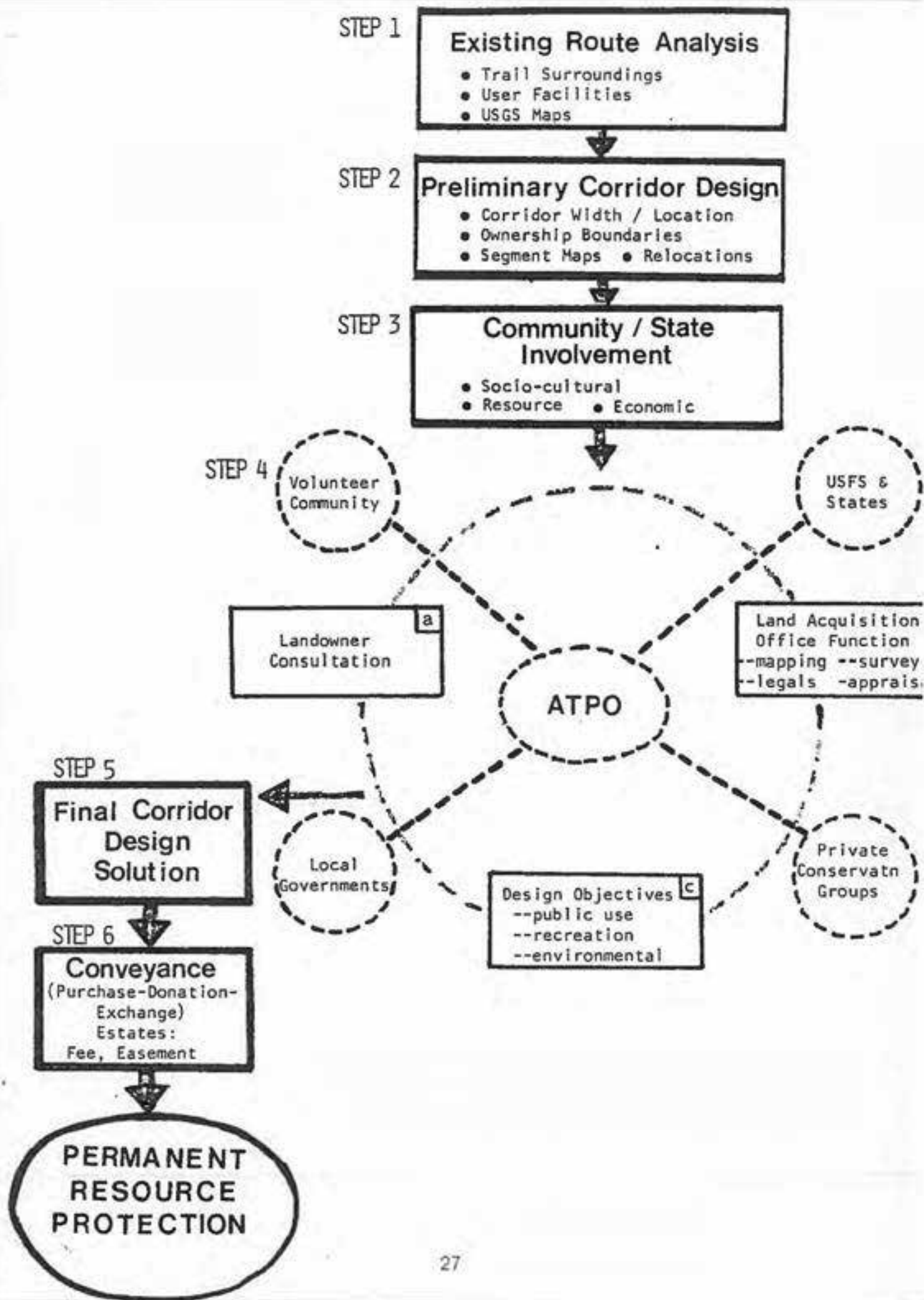
C. COMMUNITY RELATIONS

Local government participation is critical to the success of the protection program. Without the support of the communities through which the Trail passes, it would not receive the recognition it requires to sustain its viability as a valued resource. Long-term protection rests not only in acquiring tracts of land, but in nourishing relationships and fostering responsibility among the communities through which the Trail passes. To establish a climate of concern for the Trail, municipal, county and regional governments have been asked to participate early in the planning process.

Local support for the Trail is critical in management, as well as in protection. The federal government's Payment In Lieu of Taxes program, and an active and responsive volunteer community, provide valuable incentives to sustain local support. In an effort to further enhance partnership with the communities, NPS protection efforts, where possible, attempt to satisfy local conservation objectives while protecting the Trail. Local planning committees have been established to develop plans for management of AT lands, and local government has played a pivotal role in that process.

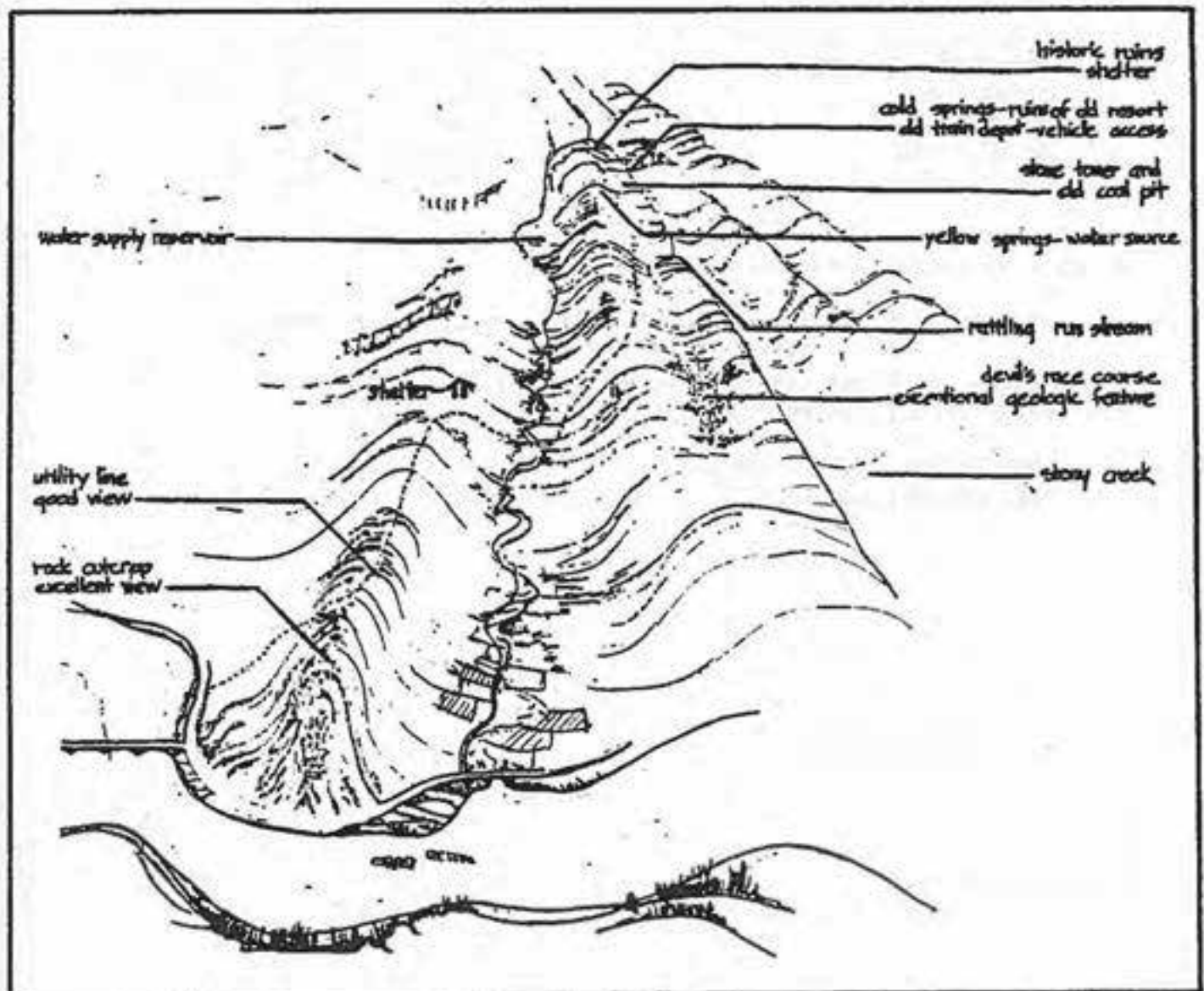
D. TRAIL PROTECTION PLANNING

A detailed description of the steps in planning a protective corridor for the Trail follows:



EXAMINE EXISTING TRAIL ROUTE:

During the initial stages of the NPS program in 1978, the existing route of the footpath was reviewed in consultation with Trail club and Conference representatives within each state. An evaluation of the adequacy of each section of Trail included an inventory of historic, geologic, botanic, scenic and cultural resources of a section of Trail, together with necessary hiker amenities. This analysis is graphically represented in the drawing below, but ordinarily would have been depicted on USGS, 7½ minute quadrangle maps.



PRELIMINARY CORRIDOR DESIGN:

A National Park Service Coordinator from the Project Office works with field representatives of the Appalachian Trail Conference, land acquisition specialists, and designated Trail club members to prepare a preliminary corridor within a given section of Trail using blow-ups of USGS Quadrangle maps referred to as Segment Maps. Ordinarily the planning team knows enough about the land adjoining the existing Trail to be able to make preliminary estimates about the width of corridor potentially needed to provide adequate visual and audio separation, as well as meeting Trail design objectives for the footpath. Plates 1 - 12 describe the techniques used to define the corridor and the extent of the resource to be protected.

Sight, sound and resource values are the principal considerations in determining width of the corridor and placement of the footpath:

LANDFORMS AND VEGETATIVE COVER	Plate 1.....Page 41
RESOURCE CHARACTERISTICS	Plate 2.....Page 42
COMMERCIAL	Plate 3&4...Page 43-44
RESIDENTIAL	Plate 5.....Page 45
RECREATIONAL	Plate 6.....Page 46
AGRICULTURAL	Plate 7&8...Page 47-48

Control points are established where the footpath must cross highways, bridges or pass under electric power lines:

UTILITY/TRANSPORTATION	Plate 9.....Page 49
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Attractions and hiker conveniences are identified as features in the design of the footpath and corridor:

SUMMITS AND VIEWPOINTS/TOWNS	Plate 10....Page 50
USER SUPPORT FACILITIES.	Plate 11&12.Page 51-52

COMMUNITY/STATE INVOLVEMENT:

Representatives of state and local government are routinely consulted before landowners are contacted. Their roles range from informal reviewers during the process, to regular participants on route planning advisory groups in Connecticut, New York, Vermont and Cumberland Valley, Pennsylvania. State and local planning and conservation commissions have recommended relocations, participated in environmental reviews, arranged and chaired public meetings, and arranged consultation between NPS and local government officials. Local planning and zoning boards continue to make a significant contribution to Trail protection by advising the NPS of applications for changes in use of lands along the Trail.

Some town governments are actively involved in working out cooperative agreements with the Park Service where the Trail crosses municipal lands. Town governments have already signed agreements to permanently protect one mile of Trail in Virginia, 9 miles of Trail in Pennsylvania, one mile of Trail in New York and lesser amounts in other states. Several states continue to administer cooperative understandings between state agencies and with local governments where the Trail crosses government land. Dutchess County, New York, officials will donate to the NPS tax delinquent Trail corridor lands. Zoning by local government provides some protection in the towns of Carrabassett, Maine, and Caratunk, Maine.

LANDOWNER CONSULTATION:

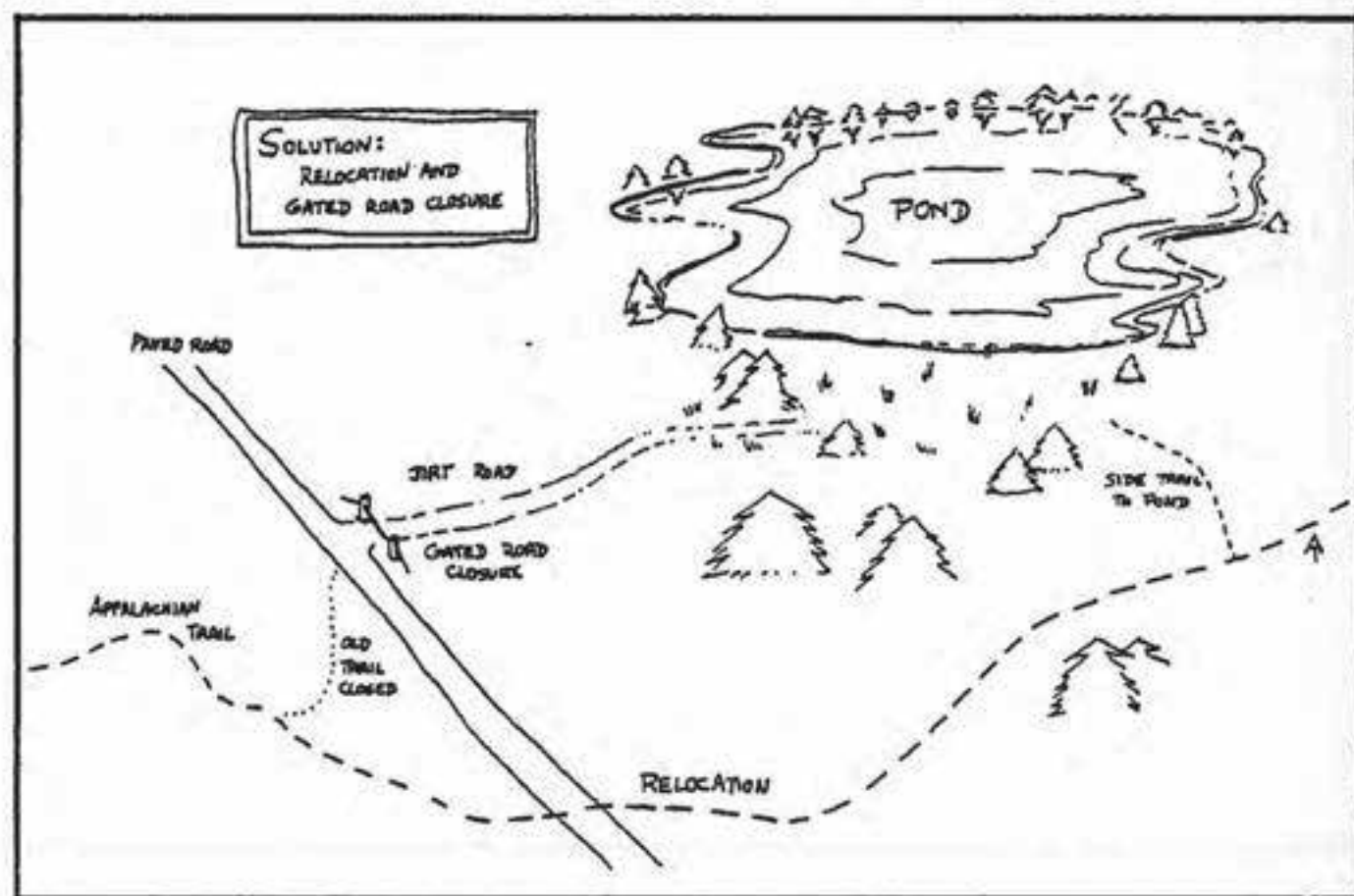
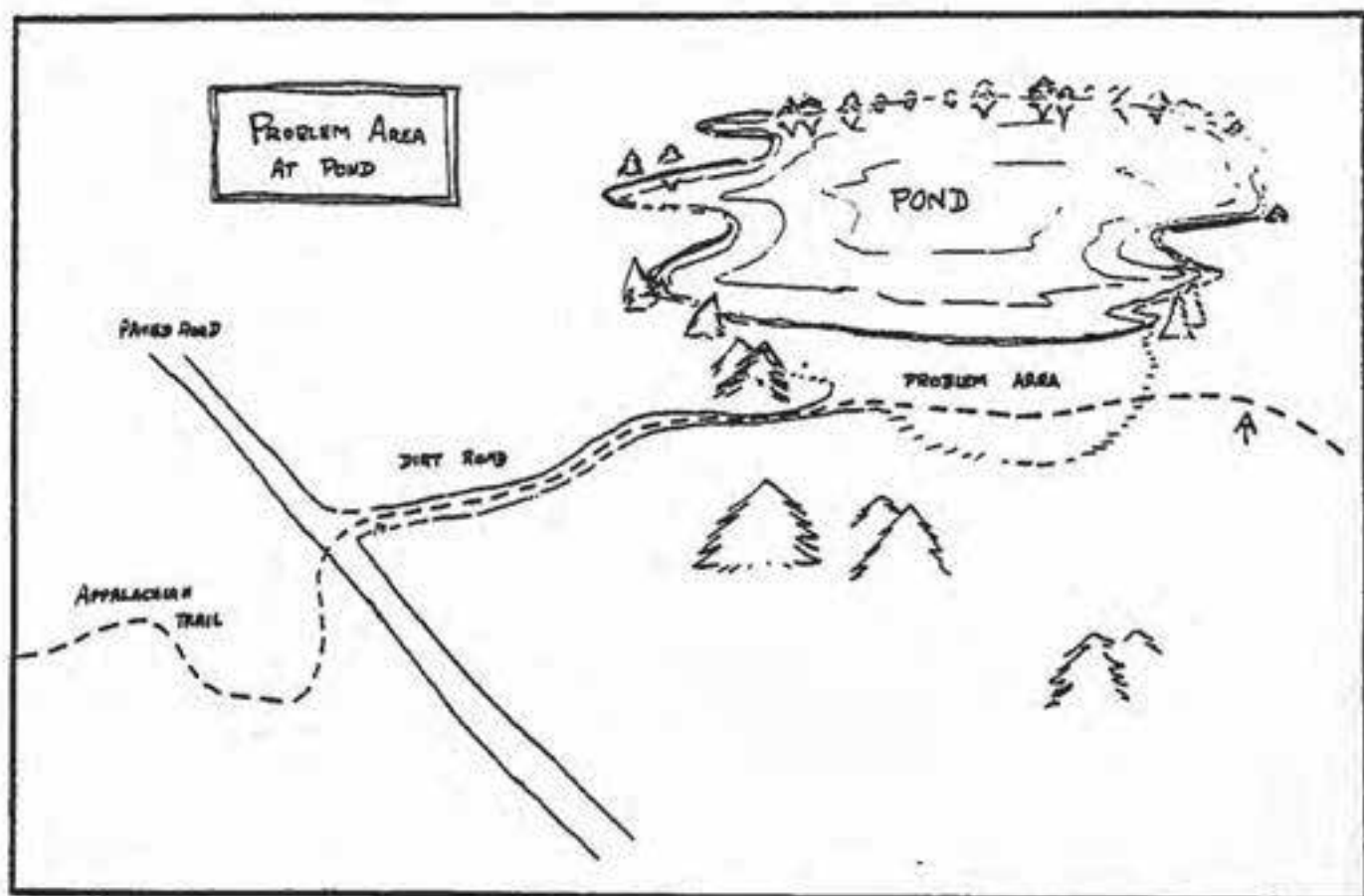
Following initial work to develop a preliminary corridor design and advise the appropriate state and local officials, Trail club representatives contact identified landowners to describe Trail objectives, advise of the NPS acquisition effort mandated by Congress, and ask for assistance in planning Trail protection.

The initial contact is followed by meetings with landowners, Trail club representatives and NPS realty specialists to begin discussions of how best to provide a corridor for the Trail along a three or more mile section. Considerations of the preliminary design are discussed with all landowners in a given section. Field work is done with permission of landowners and sometimes in their company. Relocation of the Trail is sometimes desirable because of hazardous conditions in the existing location, incompatible nature of the abutting land use, or landowner preference to have the Trail further away from developments.

Landowners are advised of the many options available to them to convey land or an interest in land for the needed Trail corridor. Landowners are given the opportunity to propose adjustments or alternatives over a period of several months until final corridor design recommendations are approved. In nearly every case a consensus is reached among all the landowners in a given section. Trail design objectives are incorporated, and communities concur before the corridor is released for acquisition.

When an apparent disagreement occurs at any time in the planning process, NPS planners work closely with the landowner, the club, realty specialists and occasionally, the community to resolve the impasse. The persons or techniques necessary to resolve differences will vary in almost every case. The solution could be as simple as surveying a property line, changing the language of an easement slightly, moving the footpath a few feet one direction or the other, providing for a special use permit or a retention of use for a number of years. Only a few situations remain where a final corridor design has not yet been agreed to by all parties concerned.

The drawings on the following page provide an example of how a simple Trail relocation away from a landowner's private service road satisfies the landowner's concern for privacy and results in an agreement with the NPS for placement of the footpath on the property.



LAND ACQUISITION OFFICE FUNCTION:

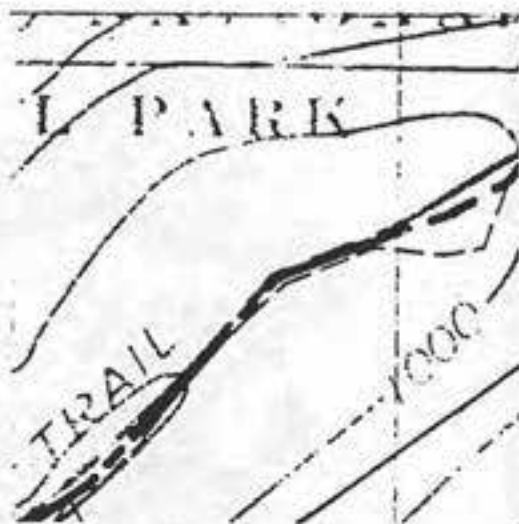
Realty specialists working on the A.T. project are involved early in the protection process, functioning in a role well beyond the scope of that traditionally performed by NPS reaty specialists. They act as a liaison between the landowner, the Trail club and the technical lands staff, providing expert assistance in planning the extent of the corridor and later the layout of the footpath. The relationship they establish among themselves, landowners and trail club managers is the key to success in achieving a satisfactory corridor design and adequate resource protection.

When a preliminary corridor design for a given section of Trail has been arrived at, a centerline survey is performed by contracted surveyors under supervision of the NPS staff surveyor. Any new information revealed by the survey is provided to the planners for incorporation into a final corridor design. Once the final corridor design has been agreed to, individual tracts can be released for acquisition and legal descriptions written by the professional cartographic staff in the Mapping Division of the Lands Office. The cartographic staff also has responsibility for producing and updating the segment maps for the Trail. When the legal description has been written, an appraisal is ordered and, upon approval, a letter of Just Compensation is mailed to the landowner. Realty Specialists then go back into action utilizing their traditional reaty skills to negotiate for conveyance of the desired interest in lands.

ATPO Segment Map

Scale: 1:7,200

1" = 600 ft.

Shows approx. 2-3 miles of trail
Available from: ATPO

Information Displayed:

- same as 7.5' quad, only enlarged
- land ownership boundaries
- exact corridor boundaries
- easements
- special use permit areas

Uses of Map:

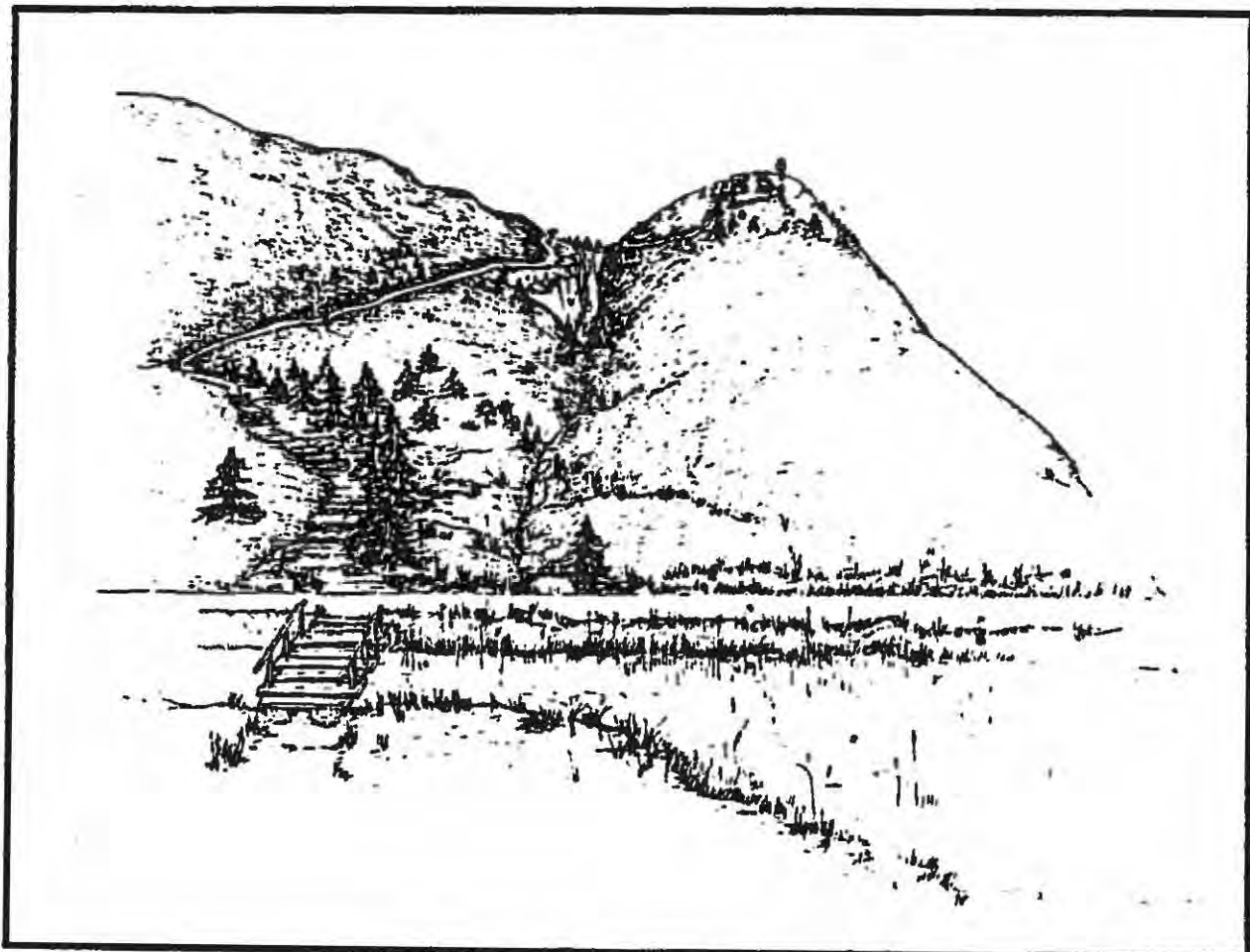
for Trail corridor monitors

DESIGN OBJECTIVES FOR THE FOOTPATH:

Incorporated into discussions with landowners, NPS coordinators, and technical NPS lands office personnel are recommendations of Trail club volunteers and Conference representatives about the design of the footpath. Three objectives for Trail design have been used informally for many years and provide guidance for decision-making:

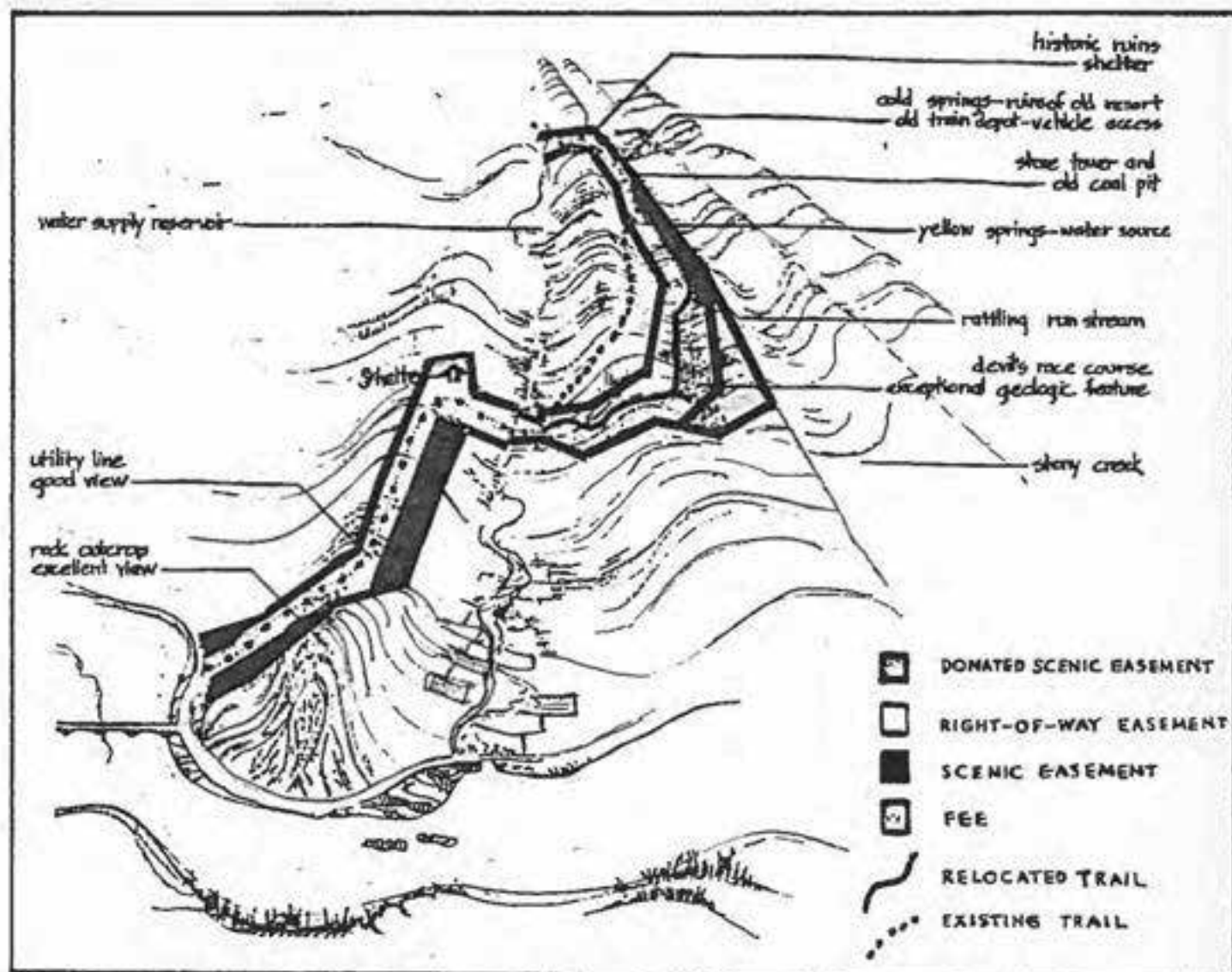
- o Public Use Objective: To provide a Trail designed and managed to reduce or eliminate conflicts among Trail hikers, other recreationists, and local residents.
- o Environmental Objective: To provide a footpath designed and managed to lie lightly on the land with a minimum disturbance to the natural surroundings.
- o Recreation Objective: To provide a continuous footpath designed and managed for enjoyable and reasonably safe hiking use in areas possessing traditional A.T. attributes.

All three objectives must be satisfied but circumstances may require balancing the importance of each objective in a particular situation. A community's desire to eliminate dangerous roadside parking, for example, may force the Trail from the most environmentally sound location. A thorough analysis of alternatives may yield a location of high quality which also satisfies the community's concern. The following drawing represents a blending of these objectives in an aesthetically pleasing scene:



FINAL CORRIDOR DESIGN SOLUTION:

The final corridor design is a result of a series of modifications to the preliminary design, worked out through negotiations among landowners, NPS realty specialists and Trail managers. Within a given section each landowner has conferred with NPS and Trail club representatives, and agreed with placement of the footpath and the extent of the Trail corridor. The final design map reflects a blending of resource protection objectives, footpath design objectives, and sensitive consideration of the social, economic and cultural impacts to communities and property owners. Graphic representation of a final corridor design appears below but ordinarily would be depicted upon segment maps (blow-ups of USGS, 7½ minute quadrangles).



CONVEYANCE:

Once the preliminary corridor design has been completed for a section of Trail, a centerline survey is performed by a contracted surveyor under supervision of the NPS staff surveyor. The results of the survey, including any new data, are submitted to the planning team for approval of a final corridor design.

Upon approval of the final corridor design for a given section of Trail, individual tracts within that section are released for acquisition and legal descriptions are prepared by the mapping division for the interest which the landowner desires to convey. Once the legal description has been written, an appraisal can be ordered for the required interest. Most appraisals are performed under contract by independent appraisers familiar with local property values and are reviewed by NPS staff appraisers to assure that requirements of the Uniform Appraisal Standards for Federal Land Acquisition are met. The landowner is encouraged to accompany the appraiser on his property inspection. Upon receipt and approval of the appraisal, an offer of just compensation is mailed to the landowner and realty specialists begin negotiations for conveyance of the required interest.

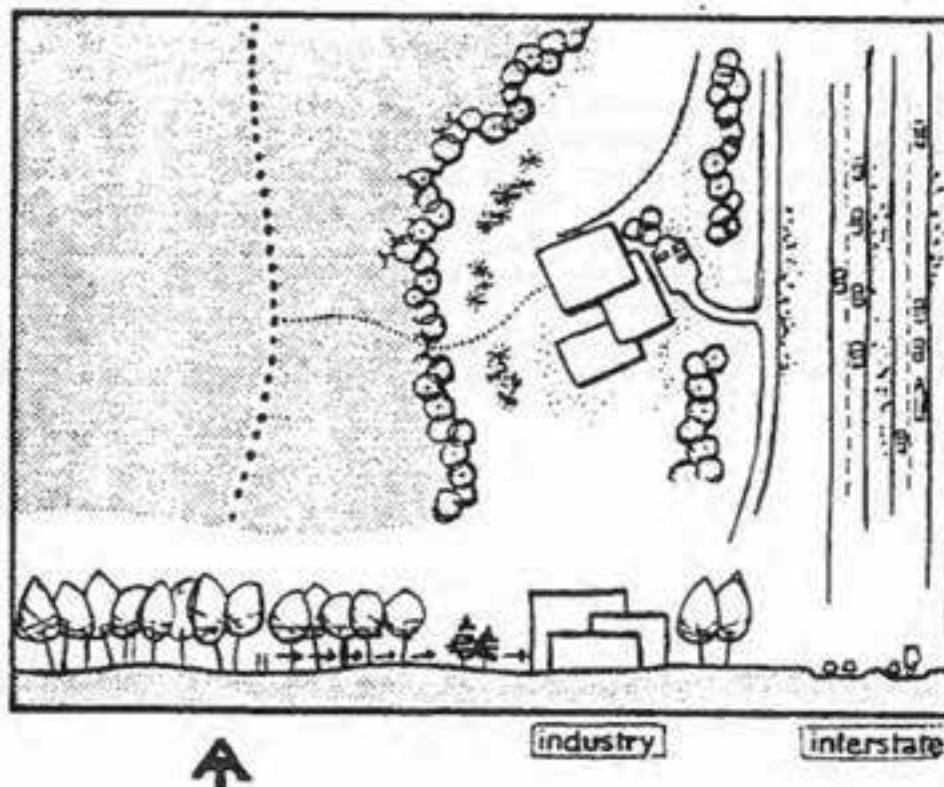
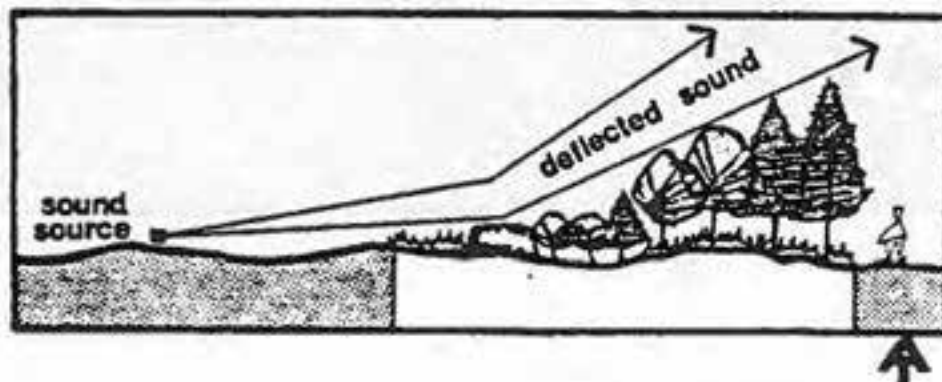
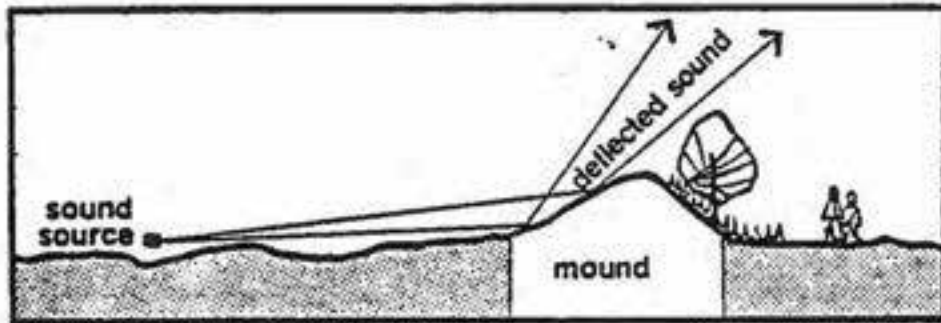
In most cases, landowners are offered the option of selling or donating easements. The types of easements will include a right-of-way for the Trail and related facilities, bordered by protective easements which limit future development near the Trail. Landowners are to continue most existing activities in the protective easement area, including farming, grazing and timber harvest. Special provisions in the easements can frequently be included to fit the circumstances of a landowner, such a right-of-way to cross the Trail when needed to reach another section of the landowner's property.

Full (or fee) title is acquired when landowners prefer not to sell or donate easements or when there is an identified need for public facilities, such as a camping area or trailhead parking. Facilities for camping and parking are located, to the extent possible, on lands already in public ownership or on lands where owners prefer to sell their full title. Landowners may also choose to sell their full interest but reserve specific interests for a period of years.

Sometimes an exchange can be worked out for an interest in previously acquired corridor lands, or an exchange can be facilitated between a landowner and the state for state lands.

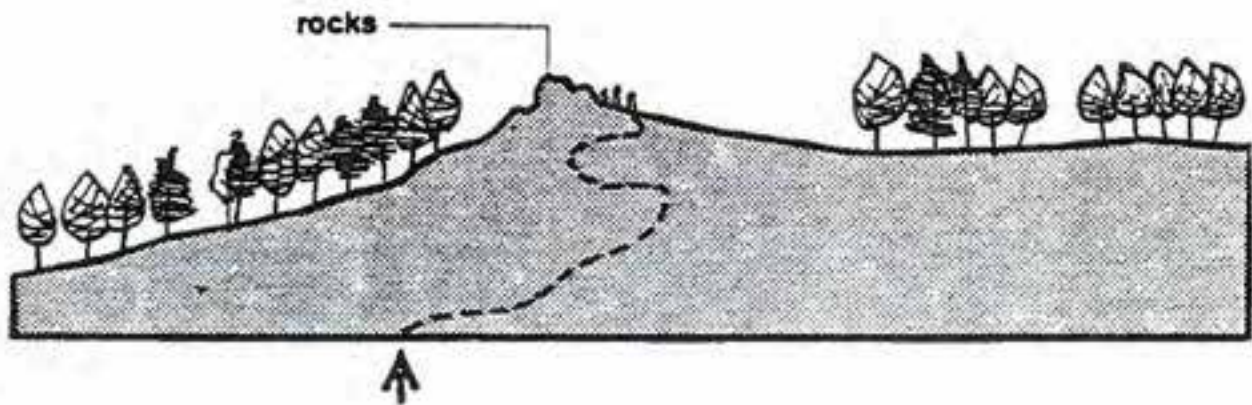
Landforms and Vegetative Cover:

Sight and sound are the principal considerations when determining recommended distances for permanent protection. To determine a total corridor width, distances have to be established for each side of the footpath. If the potential for adverse land use differs on either side of the Trail, it becomes necessary to design two separate widths.



Resource Characteristics:

ESTABLISH WIDTH AND DISTANCES



Visual impact is based on land form, unique site character, and resource significance. On-site investigation and topography are used to arrive at conclusions regarding width. The most significant landscape element of this site is the ridgetop. It is especially vulnerable to development because of the panoramic view it affords. A unique feature of this site is the rock formation with vistas which deserve protection.

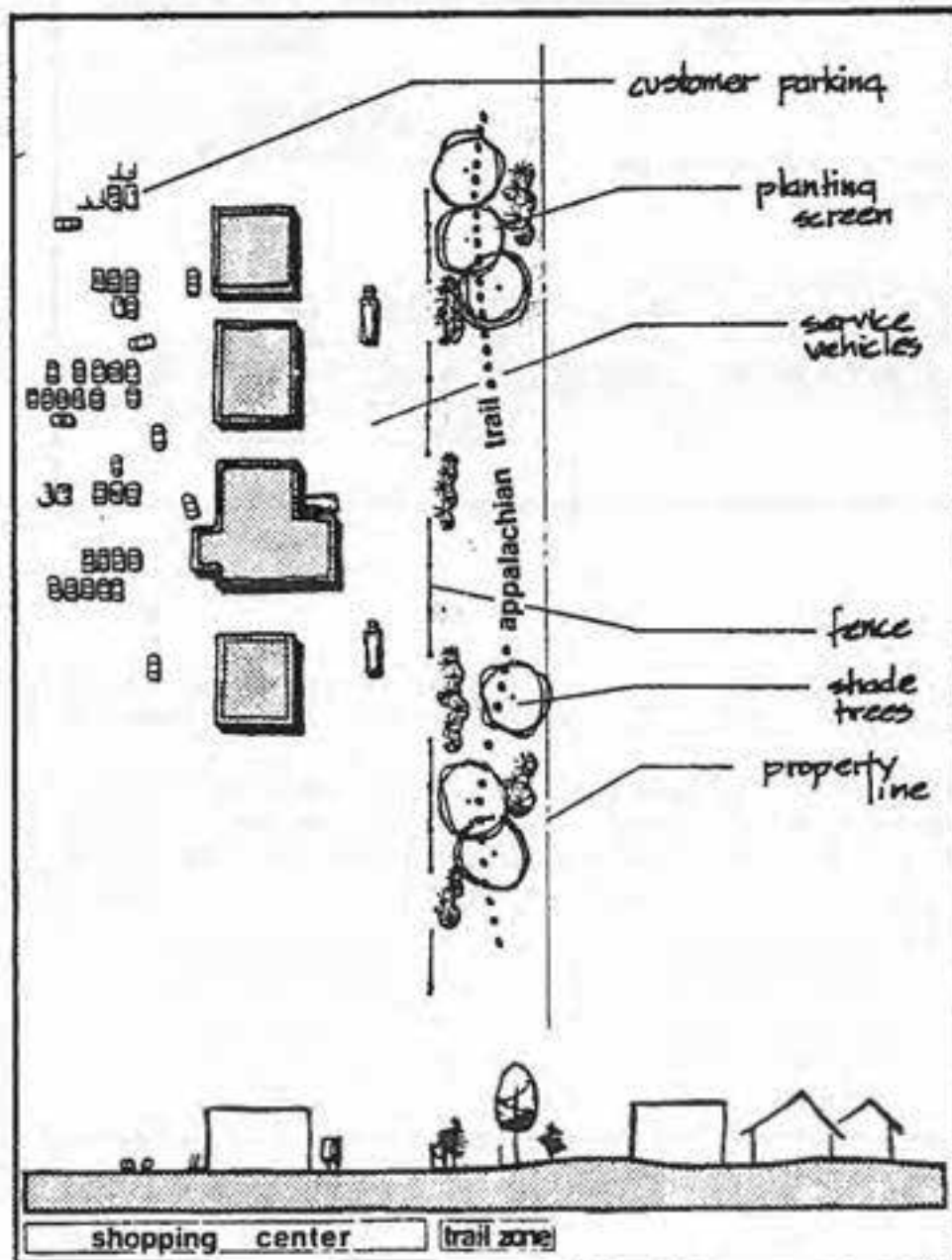
The design process needs to be far-sighted to assure a result that will make it possible to preserve Trail quality as use of adjacent lands changes.

Commercial:

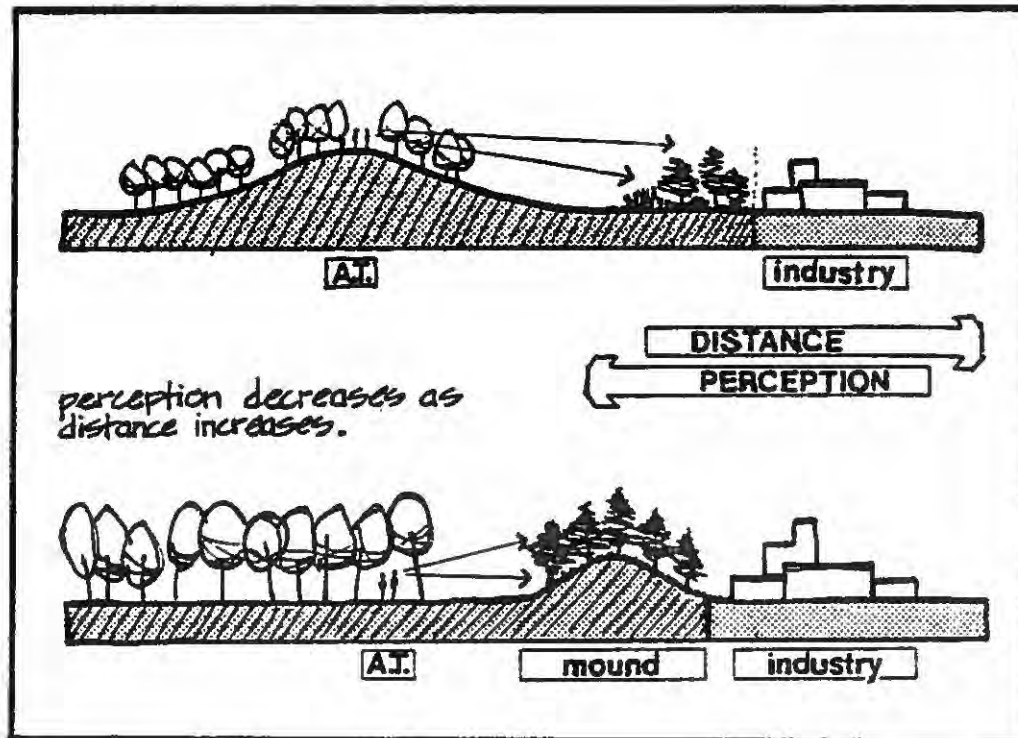
There are two major problems commercial land use generates with respect to the Trail. If the Trail must pass through a commercial development, the character of the Trail will be altered. It would be impractical to attempt a reconstruction. Instead, planning should recognize suburban character and take advantage of the existing amenities of the area.

Second, there is a major conflict between hikers and vehicles. Safety should be a major concern in planning these areas.

Occasional compromises of quality are acceptable so long as the overall character of the Trail is not compromised. The cumulative effect of corridor decisions must be considered. That is why the Appalachian National Scenic Trail Advisory Council has asked for a review of corridor decisions where substantial compromise is recommended.



Commercial (cont'd)



Vegetation and/or inclusion of a natural barrier might be necessary within the corridor to adequately screen the hiker from adjacent development.

Adequate width to control land use is also necessary where that opportunity exists in order to assure that adjacent land use remains compatible. The corridor should be sufficiently wide so that vegetation can be allowed to grow up and screen out adjacent adverse development if it should occur.

Residential:

Topographic or distance buffers separate hikers from adjacent owners, thereby helping to reduce potential conflicts.

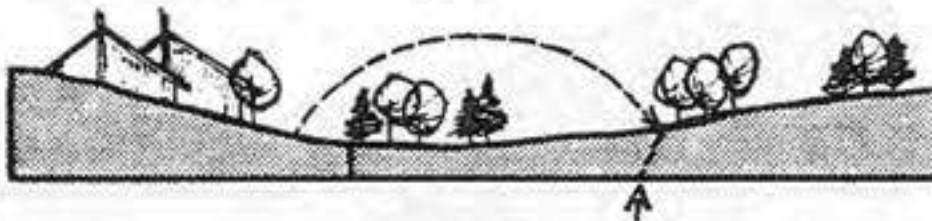
Residential development can range from a private estate to a large subdivision. The private estate will not greatly detract from the hiking experience if it is appropriately sited, because the density (per acre) is very low. Cleared areas, grading for roads and home sites, and utilities all need to be considered as a part of residential development.



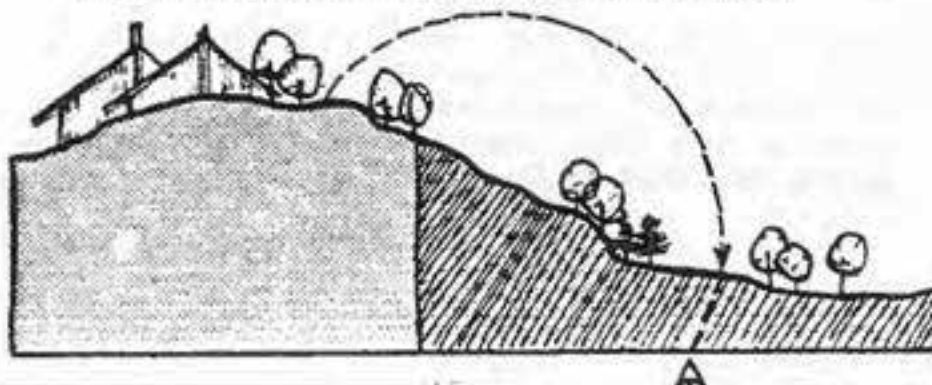
In some situations it might be impossible to establish an adequate corridor width. In this case, two basic alternatives should be explored to recreate a desirable hiking experience:

- shifting Trail to take better advantage of existing landforms and vegetation
- additional planting

In a shallow valley, moving the Trail may help to isolate it.



Where a steep slope exists, moving the Trail as shown will recreate the hiking experience.

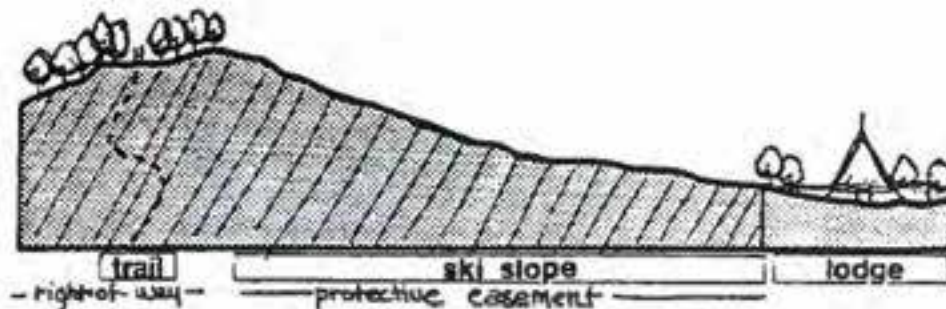


Recreational:

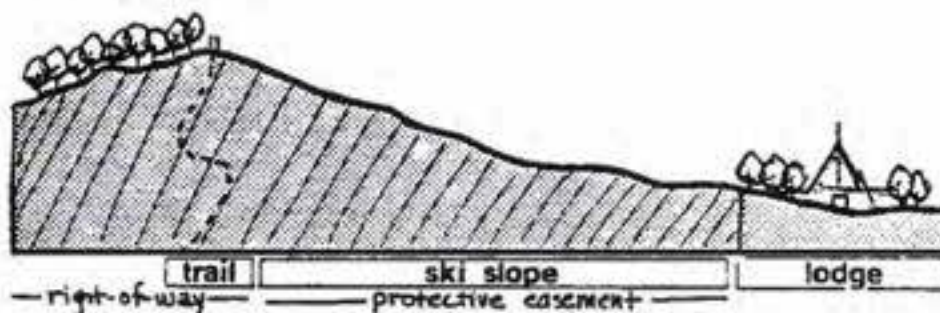
There are many forms of recreational activities that occur along the Trail corridor. The peripheral areas of most recreation developments are maintained in a natural state compatible with the Trail corridor. There is little conflict between recreational use and Trail protection and where such conflicts are anticipated they can usually be worked out by simple Trail relocations.

1. If it is decided for aesthetic or other reasons to avoid the slope, the Trail should be routed on the southern side of the ridgetop.

This is probably the best solution and should always be considered as an alternative.



2. If the ski slope provides a good view for the hiker and there is no objection by the owners, it may be possible to route the Trail across some of the slope clearing.



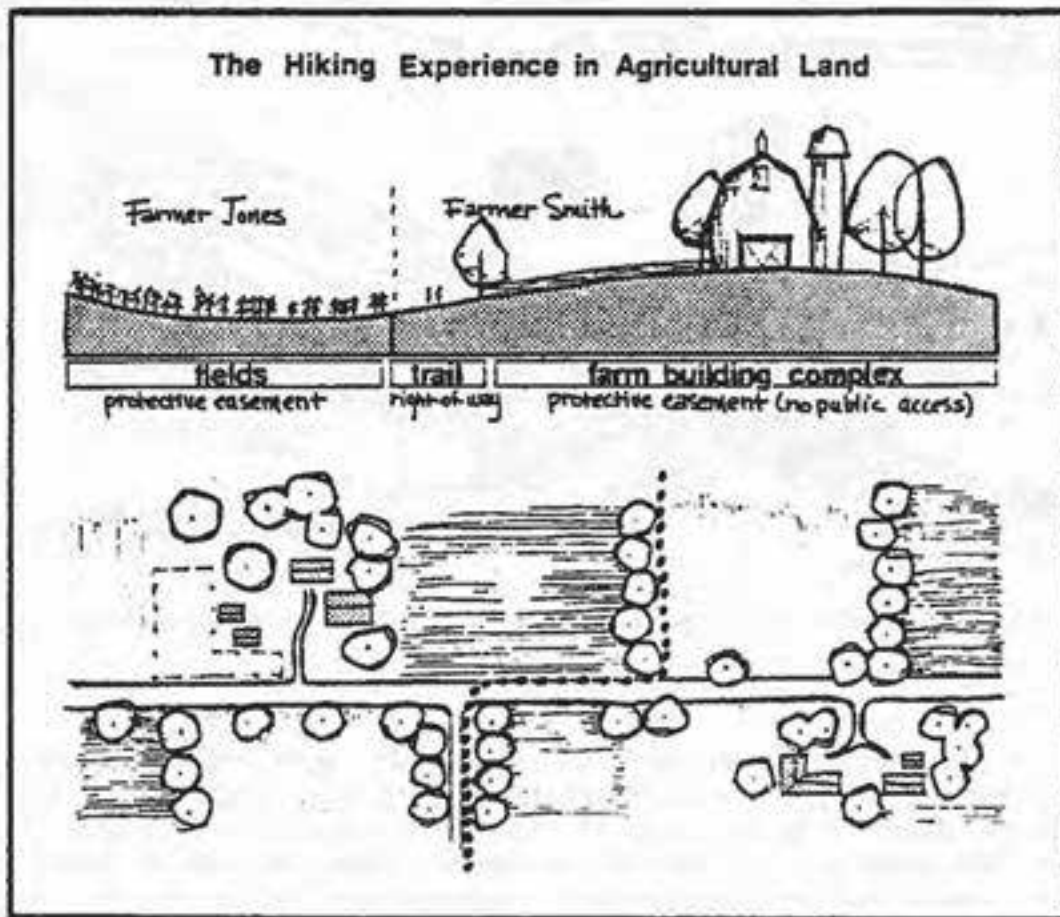
When possible, the Trail should cross the slope in such a location so that the hiker cannot see the entire slope and lodge area. Rather, he should cross an area where he will be able to take advantage of the view while still feeling securely a part of the ridgetop.

Agricultural:

The agricultural landscape is usually complementary to the hiking experience. Agricultural land consists of cultivated fields and grazing pastures, interlaced with hedgerows. Two lane dirt roads are typical and traffic is usually light. Buildings are usually clustered but tending to be of a very low density, and consist mostly of homes, barns, sheds and storage buildings.

Possible solutions for rerouting the Trail across agricultural land depend on the landowner's feelings concerning the use of the land.

The solutions presented show how a landowner may be protected from major inconvenience resulting from the Trail crossing agricultural land and also how to improve the hiking experience for the users of the Appalachian Trail.



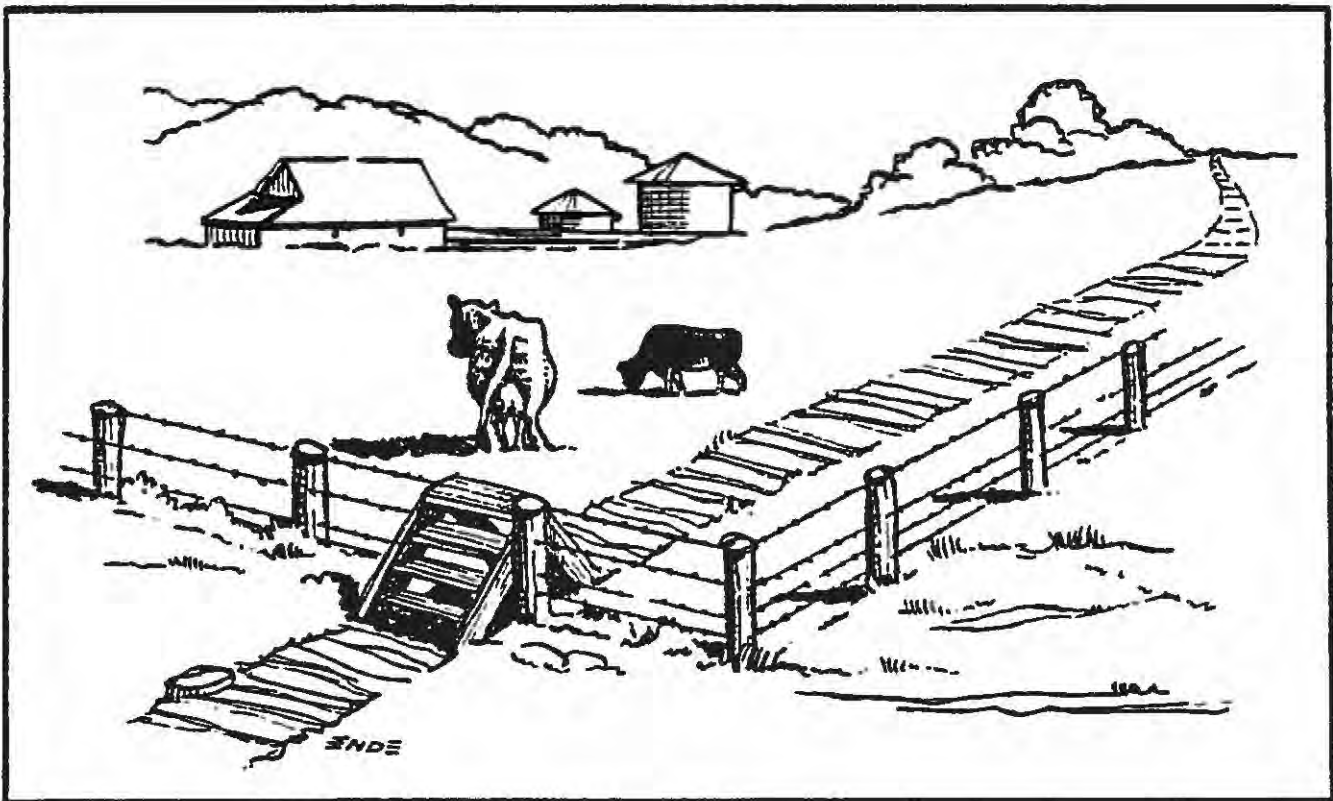
The best location for the Trail would be along the hedgerows between fields. This would cause the least crop damage and also provide shade for the hiker.

The Trail should have as direct a route as possible across agricultural land.

The Trail should not be routed near farm buildings.

Some crops are more susceptible to damage than others and whenever possible the Trail should be routed accordingly. Example-corn and grain crops are less susceptible than fruit orchards.

Most importantly, the individual farmer must always be included in planning a trail to cross his land.



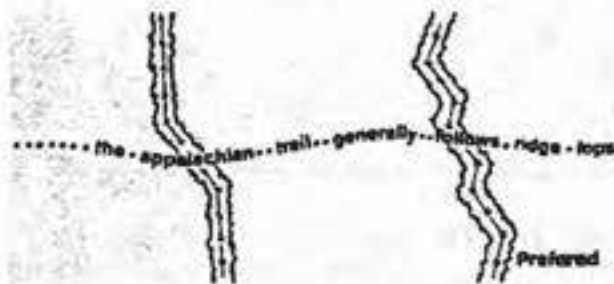
Fields, orchards, and pastures form the Trail environment in many places. The landscape's openness provides fine views and creates diversity. In order to ensure compatibility of agriculture and hiking, installing Trail improvements that prevent damage to crops and assure Trail access across fields without disruption to agriculture is the key to footpath layout.

Utility/Transportation:

Safe and aesthetically pleasing corridor crossings which do not conflict with utility or transportation corridors must be planned and often determine the destination points for the footpath.

• Powerline crossing ridge top

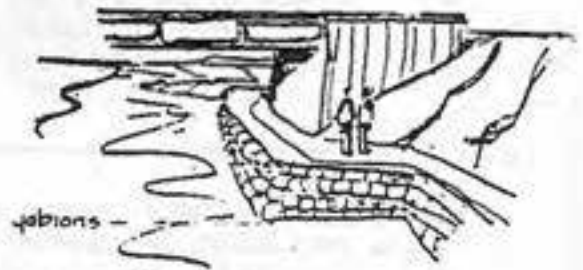
- the visual impact of overhead transmission lines on mountains can be reduced by routing them as shown above.
- this technique can be used in other mountainous areas.



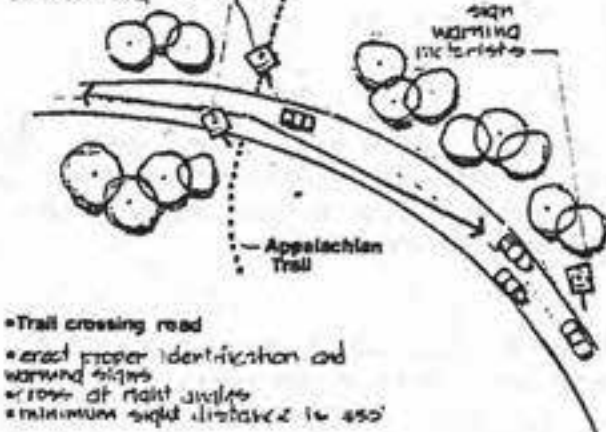
• Trail crossing limited access highway

• underpass

- use gabions (stone filled wire containers) to raise ground level out of water



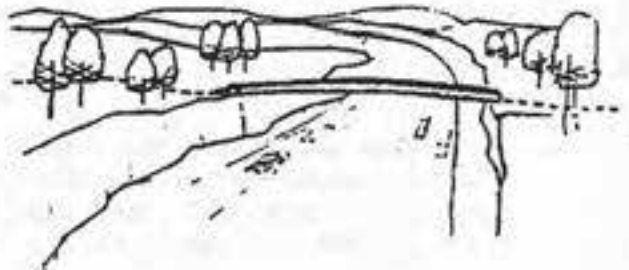
• signs to identify trail crossing



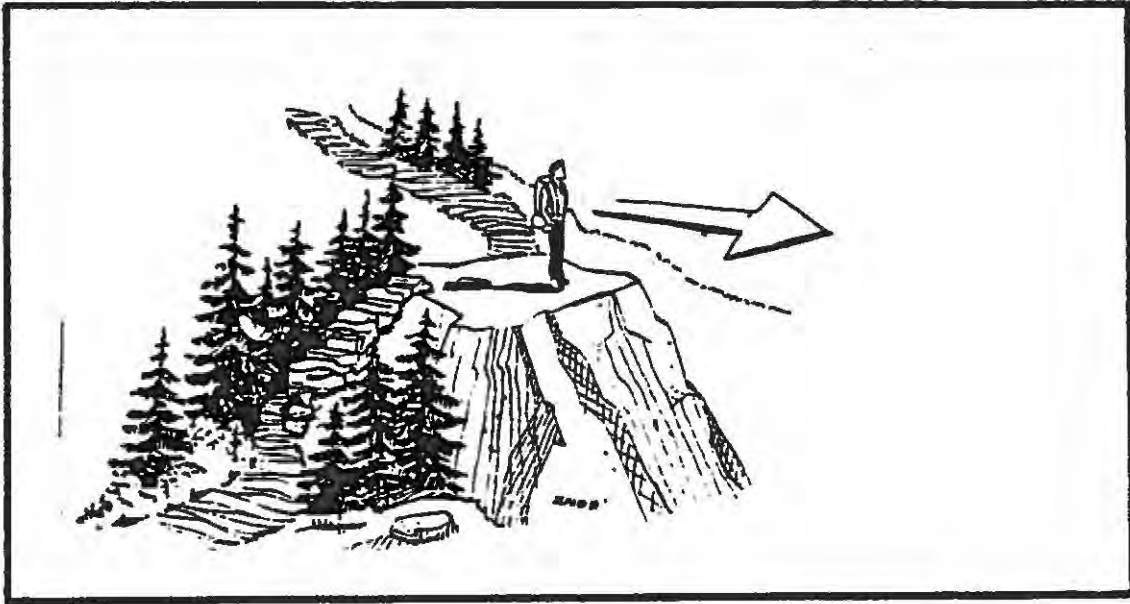
• Trail crossing road

- erect proper identification and warning signs
- cross at right angles
- minimum sight distance is 450'

• overpass (footbridge)



Summits and Viewpoints:



Placing the Appalachian Trail in quality settings in remote forests, rural woodlands and pastoral localities is a primary recreational design aim, especially including viewpoints which reveal the richness and variety of landscapes along the route of the Trail. Cultural and historical features also need to be taken into account.

Towns:

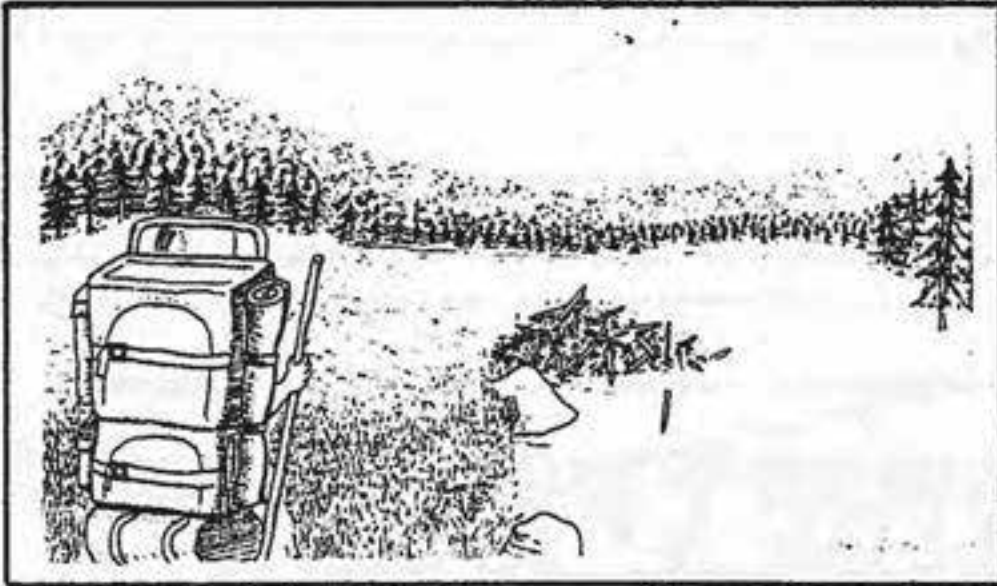
Although the Trail route should generally be in natural settings, Trail design should offer periodic access to towns for contrast, as well as provide points for hiker resupply. These stops provide hikers with well-remembered contacts with local people and culture.

Damascus is one of the few towns through which the Appalachian hiking trail passes in its more than two-thousand-mile route from Maine to Georgia. Every year many hikers add to the town's life, especially in the summer, and a thirty-mile portion of the Trail is maintained by the local Mount Rogers Appalachian Trail Club, organized in 1960 and affiliated with the Appalachian Trail Conference. The Damascus United Methodist Church demonstrates its interest in the Trail and its hikers by providing a well-equipped hostel in the large house immediately behind the church. Every year hundreds of packages containing food and supplies for long-distance hikers are mailed to the Damascus post office; over the years, these visitors have learned that if they arrive after the post office has closed for the day, Postmaster Paschal Grindstaff will cheerfully open up and hand out the badly-needed supplies.

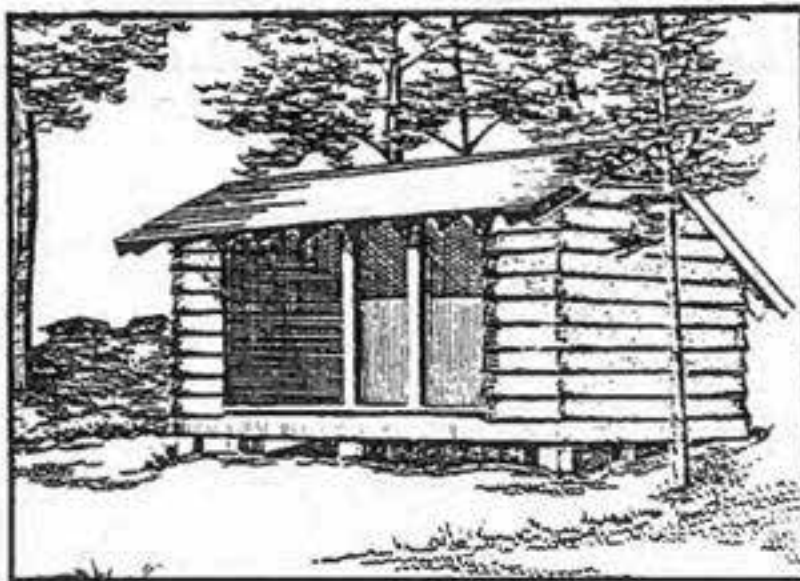
-- History of Damascus, Va.
by: Louise Hall

User Support Facilities:

Water features along the Trail serve as sources of drinking water and as scenic features enhancing enjoyment. The Trail design should direct the hiker near mountain ponds, lakes and springs.

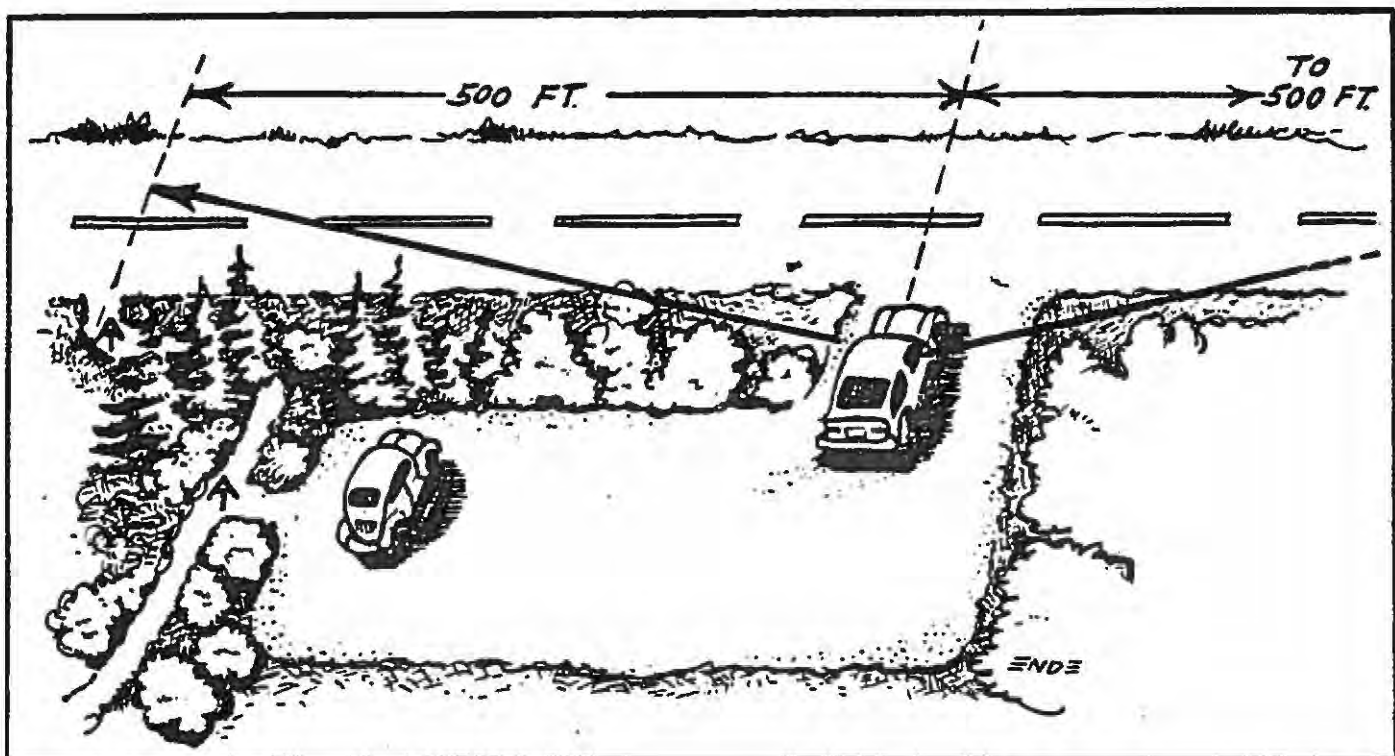


The Trail design should include shelters, campsites, and sanitation facilities on the existing route or provide good locations for shelters and campsites on a relocation.



User Support Facilities (Cont'd)

Selective location and development of trailheads control where and how much use the Trail receives. Proper location of trailheads and safe road access are critical factors in the relationship between the Trail users and managers and local residents, towns, and counties. Selection of trailheads and parking lots must be considered in relationship to the whole system of trailheads in the surrounding area and the level of use.



VI. ANALYSIS OF PROTECTION TECHNIQUES

A. FEE ACQUISITION

Overview:

Holding fee (or full) title over a property allows the owner to hold all of the rights associated with that property. Acquiring land in fee is the most commonly used technique for protecting the Trail corridor because most landowners prefer to sell in fee over the other alternatives available. Of the 616 tracts protected by the Park Service along the Trail, 495 have been purchased in fee at a cost of \$27.2 million.

Public Law 90-543, the National Trails System Act, specifies that rights-of-way for national scenic trails "should be acquired in fee, if other methods of public control are not sufficient to assure their use for the purpose for which they are acquired." In recommending increased authority for Appalachian Trail acquisitions in 1978, however, the Senate Energy and Natural Resources Committee report states that "where protection of the Trail corridor and adjacent lands can be accomplished through acquisition of lesser interests, the Secretary should pursue that option." The decision to use easements for the Trail when landowners prefer reflects both Congressional direction and appreciation of landowners' long-standing relationship with the Trail.

Advantages:

- Level and permanency of protection - Fee acquisition offers full and permanent control of the use and management of the resource, particularly where developmental pressures or threats to the resource are strong. Continuity and quality of experience along the A.T. can be assured through acquisition of the full interest in a major proportion of properties within the Trail corridor. Fee acquisitions are an essential part of a successful protection effort, considering the long, narrow corridor of the Trail.
- Public use - Lands protected in fee allow public access, whereas other forms of protection often involve restrictions on the extent of public access.
- Landowner concerns - Concerns about liability associated with public use of private land are mostly eliminated. Landowners often are quite willing to sell lands, particularly when there is no other market for their land, when they need capital, or if they do not want to pay taxes on the lands. Fee simple is also a relatively easy option to negotiate in that a total package of rights is purchased without limitations or restrictions.
- Commitment - Federal acquisition efforts demonstrate the commitment on the part of the federal government and act as incentive for others to join in the protection effort.

- Process - The acquisition of fee is a relatively straightforward procedural process. The costs associated with the administration and management of an acquisition effort are predictable. "Hidden costs" rarely arise.

Disadvantages:

- Budget - Land costs have been rising rapidly over the years and it is difficult to keep pace with inflation. Criticism has been expressed about the high initial cost of fee acquisition.
- Attitudes - Many citizens are concerned about federal control of private lands. Local governments are also concerned about the effect federal land acquisition can have on the tax rolls, although this does not appear to be a major issue on the Trail because acreages involved in any one jurisdiction tend to be small.

Impacts:

- Financial - As mentioned above, the costs of land continue to rise, making it more difficult for federal protection efforts to keep up. The loss of tax revenue at the local level is offset somewhat by in-lieu-of tax payments.
- Socio-economic - 88% of the Trail landowners preferred to sell their property in fee over easements. Those selling fee prefer it because they divest themselves of the whole property, receive fair market value, relocation benefits, and release from local taxes. Since Trail acquisitions involve mostly undeveloped land and limited acreages in individual communities, the social fabric of the area is not disrupted to a significant extent. Landowners who want to retain ownership in the underlying fee and sell easements are encouraged to do so. The greatest unfavorable impact occurs when there is an unwilling landowner whose property is condemned -- a rare circumstance for the Appalachian Trail.
- Resource - Lands acquired for the Trail are fully protected as required by the legislation when acquired by the Park Service and Forest Service. Some difficulty has been reported in controlling adjacent land uses and their impacts on the Trail.
- Management - Management of lands protected in fee present no special problems. Marking boundaries, monitoring the land uses, and dealing with encroachments are relatively easily resolved for both cooperating Trail clubs and government agencies. The cost of managing the Trail is minimized through the volunteer help of the cooperating Trail clubs.

Discussion:

The effectiveness of the protection effort for the Trail depends on a well-funded acquisition program. Without fee acquisitions, Trail continuity could not be protected adequately as mandated by P.L. 90-543 because of

the complexity in dealing with a 2100-mile resource. The acquisition program also serves as an incentive for other units of government and private conservation organizations to assist in the effort. Private groups such as land trusts are more willing to protect lands along the Trail if they can be reimbursed for their efforts. A federal acquisition program can also serve as a negative incentive by stimulating state or local protection as an alternative to federal involvement.

Condemnation has also been a necessary aspect of the acquisition and protection effort. This is particularly true on the Trail because of the large number of landowners and the linear character of the resource. Used only when necessary, condemnation helps overcome problem areas that block the continuity of the Trail. Condemnation proceedings have been used sparingly on the Trail with only 15 out of 616 cases going to condemnation.

Although the bulk of the Trail protection has been through fee simple acquisition, a range of other creative techniques and alternatives has been offered and used. The existing blend of private initiatives and alternative techniques has supplemented and complemented the protection effort. In cases where techniques other than fee were appropriate and economical, they were used. However, the fee acquisition effort has provided a major incentive and has been the driving force behind the protection effort as a whole and also in the use of alternative techniques. If the federal acquisition effort were reduced or eliminated, Trail protection could not be accomplished as mandated by the National Trails System Act.

RECOMMENDATION:

Continue an adequately funded federal acquisition program that encourages and allows use of alternative techniques where appropriate. Approximately \$28,000,000 will be required to complete the federal Appalachian Trail protection effort.

B. LESS THAN FULL MARKET VALUE

Overview:

Donations and partial donations (bargain sales) of land represent one of the least expensive ways the government can acquire land and can represent a significant part of a protection program. Donation of land for conservation purposes can result in tax benefits to the donor, and in most instances landowners are motivated by economic incentives. Sometimes, however, the conservation goals of the Trail or a property owner's sense of stewardship for the land can be determining factors. In most donations, title is transferred in fee simple.

In the protection effort, the Park Service has received 2 donations of fee, 15 donations of right-of-way easements, and 4 donations of protective easements. This includes 13 tracts where Trail use agreements have been provided by local governments. Donations have been received from both corporations and individuals, primarily through their initiative.

Advantages:

- Cost savings - A donation made directly to the agency is the least expensive form of acquiring land or interests for Trail protection and provides savings in acquisition costs.
- Landowner negotiations - Donations allow added flexibility in negotiations and provide an opportunity for landowners supporting protection of the Trail to contribute to the effort. Likely donors are usually large landholders or those who are interested in benefitting from the charitable deduction available from the Internal Revenue Service.
- Public relations - Landowners and the agency benefit from the positive publicity donors receive and donations demonstrate support of Trail protection.
- Protection - Donations provide permanent and adequate protection for the Trail because most donations are in fee.

Disadvantages:

- Policy - Current Park Service policy restricts realty specialists from offering tax advice, thus limiting their ability to obtain donations.
- Incentives - The financial incentive to donate for public purposes is decreased with the new tax laws.
- Willing landowners - Only a limited or select number of landowners along the Trail stand to benefit from donating to the protection effort with the result that donations are difficult to obtain. In addition, some landowners may be less willing to donate to the Federal Government than to private organizations.
- Assistance to landowners - The benefits of donating must be identified and provided to landowners. Expertise and procedures for soliciting donations need to be developed.

Impacts:

- Financial - Donations can provide cost savings to the Trail protection effort. Only willing landowners or those who stand to benefit from donations can be expected to contribute to the protection effort along the Trail. If donations were sought from likely contributors, some cost savings would result. Funds for appraisals, surveys, title transfer, etc., would still be required.

- Socio-economic - Landowners stand to benefit from tax deductions, the knowledge that their land will be permanently protected, and the recognition they receive for aiding in the Trail protection effort. Since donations are voluntary, landowners will only participate if it is to their benefit and if their particular needs are met.

- Resource - A donation provides the greatest level of protection if the land is acquired in fee. Donations of easements provide a lesser standard of protection, since the landowner retains some interest in the land. Donations of lands outside of the corridor would help protect adjacent lands or areas which the Park Service may not be authorized to acquire.

- Management - Management would be conducted in the same way as on other lands owned by NPS. There are no special management problems peculiar to donations.

Discussion:

Donations comprise only a small percentage of total land transactions on the Trail; however, they do provide cost savings and an added dimension to the protection program. In most cases, landowners opt for a donation because of the economic incentives available to them; however, some are motivated by the conservation goals of the Trail. The key to a donation program is being able to identify and seek potential contributions by discussing the benefits of donations with landowners. The potential to promote and increase donations as a protection technique along the Trail exists and should be encouraged wherever possible. The recommendations included in this analysis would increase the use of donations and partial donations. Bargain sales are also desirable and cost effective in situations where a landowner needs to receive some cash for his property, but can afford to make a partial donation of the land value while receiving a corresponding tax deduction.

Problems do exist, however, which make pursuit of an active donation program by the Park Service difficult at this time. In addition to Park Service policy restrictions, there is a general lack of educational material and expertise for soliciting donations. Also lacking is an adequate recognition program for landowners which could help motivate them to donate. New tax laws have decreased incentives to donate. There is a need for some system of certifying that a donation is for conservation purposes (enactment of H.R. 861 would meet this need for Trail lands). Finally, there is a need for more or different incentives to expand the number and range of people who can benefit from donating land for conservation purposes. The majority of landowners along the Trail own small tracts and are not in high enough tax brackets to benefit under existing tax law.

The Appalachian Trail Land Acquisition Office has developed suggested revisions to current Park Service policy which would:

- 1) allow realty specialists to become sufficiently knowledgeable of current tax laws to be able to encourage landowners to make whole or partial donations of their land or interests in their land;

2) suggest that efforts to seek donations be coordinated with cooperating nonprofit organizations to avoid conflicts and confusion to the landowners;

3) require that donations be confined to those necessary to implement the Land Protection Plan for the area.

In addition, the Appalachian Trail Land Acquisition Office has embarked on an active plan to study ways to encourage donations for the Trail protection effort. A member of the staff has recently been given a full-time special assignment to research and develop a strategy for encouraging donations, and to then develop a specific training program for Park Service negotiators to implement this strategy. The research will include examining the tax laws to obtain a clear understanding of what they provide and what the implications are with respect to donations. An effort will be made to understand the IRS valuation process of donations, as well as the certification process for donations to qualify. (It is understood that passage of H.R. 861 would qualify all Appalachian Trail corridor lands for certification.) Experts within the land trust community will be identified who can provide specific tax advice to individual landowners, since Park Service negotiators will still be limited to a factual presentation of advantages and disadvantages, rather than providing an individual's actual tax consequences of a donation.

RECOMMENDATION:

The project should continue to study all aspects of donations and to review existing Park Service policy regarding donations. The study should be aimed at developing procedures for soliciting donations in cooperation with private organizations, developing educational material, and designing a training program for NPS realty staff. A strategy for a high level donor recognition or acknowledgement program and a process for the valuation and certification of donations should also be developed.

The National Park Service should develop and adopt a policy that would allow realty specialists to seek and encourage donations and bargain sales as a protection method for the Trail.

Legislation should be enacted that would allow for tax credits or incentives to broaden the range of possible donors for public conservation purposes.

C. LESS THAN FEE INTEREST (techniques that do not result in full fee ownership by the federal government)

Overview:

Acquiring partial interests in property is often discussed as a cost-saving protection alternative to acquiring fee. The Park Service is authorized to acquire partial interests, and has done so for the Trail. Cost savings can result compared to fee purchase but often these savings are small.

To date, about 12% of all landowners who have sold have elected to sell easements. The Park Service has acquired a total of 616 parcels on the A.T. to date of which 121 have been easements. Right-of-way easements currently protect 27.2 miles of Trail. The 102 purchased easements cost an average of 74% of the fee value. The 43 right-of-way easements purchased cost an average of 82% of fee value and the 59 protective easements purchased cost an average of 70% of fee value. Easements have been donated over 19 tracts, including cooperative agreements with municipalities over 13 tracts.

EASEMENTS

An easement is a contractual agreement whereby the current owner retains possession of the property, while granting public access and/or agreeing to restrict development. Easements can be either purchased or donated. In most cases, Appalachian Trail landowners are offered the option of selling or donating easements rather than fee. The types of easements include a right-of-way for the Trail and related facilities, bordered by protective easements which limit future development near the Trail. Landowners retain the right to continue most existing activities in the protective easement areas, including farming, grazing, and timber harvest. Special provisions in the easements are frequently tailor-made to fit the circumstances of a landowner.

Easements vary considerably depending on the interest sought, the method by which they are acquired, and the value of the easement. This variety makes them a very flexible alternative tool in land protection. Easements have been the most widely used less-than-fee alternative by the Project.

Advantages:

- **Costs** - Easements can provide cost savings over fee simple purchase, and savings can be increased even more if donated.
- **Flexibility** - Easements can be tailor-made to meet landowners' specific land use needs. On the Trail, a layered system of easements is used. One easement allows public access within the corridor while an outer layer of easements within the corridor protects the footway from encroachment. The easements contain special provisions which permit some continued land uses by the landowner within the corridor.

- Private ownership - Continued private ownership of the land results when easements are used. Lands remain on local tax rolls, and lower tax payments may result for the landowner as a result of the federal payment-in-lieu of taxes program. A landowner who conveys easements is usually sympathetic to the protection effort and generally will guard against uses not permitted by the terms of the easement.

- Negotiating tool - Easements offer an alternative method of conveyance to fee for those landowners who wish to retain an ownership interest in their land. Offering landowners a choice has been an advantage in gaining their understanding of the resource protection needed and their acceptance of the corridor width.

- Protection - Easements, if not used too extensively in a given Trail section, provide for public access while protecting the A.T. corridor as mandated by the National Trails System Act.

Disadvantages:

- Costs - Costs of easements may approach the full cost of fee simple acquisition. Fewer rights are conveyed but the Park Service pays nearly as much as it would pay for fee particularly in areas of high development potential.

- Negotiations - Easements are generally not preferred by landowners when they have the option of selling in fee. Easements may also complicate negotiations in cases where landowners are unfamiliar with the concept of easements.

- Management - The complexity of monitoring the terms of easements and the added expense of monitoring and enforcing land use changes over time will result in costs over and above those incurred for management of fee. This is especially true where property changes hands.

Impacts:

- Financial - Purchased easements cost an average of 74% of the fee value. The price of easements, therefore, approaches fee value in many cases with fewer rights being held by NPS.

- Socio-economic - Some landowners view easements as a preferable alternative to fee acquisition because it allows them to retain ownership, and continue compatible uses of the land. On the other hand, most landowners prefer the fee option because they do not want restrictions on their land or prefer full compensation without further obligation.

Easements have the best potential to be applied where developmental pressure is not high; continued farming, timbering, or grazing is desired; shared stewardship for the Trail is attractive; easements and the restrictions that come with them are understood; and where easements can be flexible enough to fit local needs and land uses. If most or all of these conditions are not met, fee acquisition is preferred by landowners and is more economical to NPS.

Local governments may be partial to easements because land remains on the tax rolls although the amount of tax revenue may be diminished.

- **Resource** - Portions of the Trail can be adequately protected using the existing system of layered easements where landowners are willing to accept a shared responsibility for the Trail. Public access and protection of the Trail corridor must be provided to be consistent with the National Trails System Act. As Trail easements are conveyed from one landowner to the next, Trail managers fear loss of commitment by succeeding holders of the easements to the standard of protection of the resource agreed to during original negotiations.

- **Management** - Corridor monitoring is a part of the volunteer Trail club's management responsibilities. Volunteer monitoring of easements may not be a management problem to the clubs where friendly landowners monitor their own properties against trespass and adhere to the terms of the easements. Easements must be monitored by Trail clubs against unauthorized use by the general public as well as potential violations by the current landowner and holder of the easements. This problem increases significantly as land changes hands and subsequent owners are unaware or less committed to the easement restrictions agreed to by previous owners. Unauthorized use can become very difficult to ascertain, especially where easements are tailored to individual situations.

Monitoring easements can be very labor intensive and time consuming. Although volunteers provide this service, the cost and effort of such work should be recognized. The volunteer contribution, like all precious resources, is limited, and should be rationed wisely to provide the greatest public benefit.

Discussion:

From the beginning of NPS acquisition in 1978, landowners have been offered the option of selling easements rather than full fee interest. While easements have produced some cost savings as a result, their primary usefulness has been in creating a good climate for negotiations. The opportunity to choose the method of conveyance, together with the terms of easements, has made it possible to reach agreement in nearly every case without resorting to costly condemnation action. Because of the narrowness of the Trail corridor and the nature of the management system used to monitor the lands within the corridor, exclusive use of easements would not provide adequate resource protection and would not be justified based on cost savings.

As an extension of the flexible A.T. corridor planning process which is sensitive to local and landowner needs, offering landowners the choice of easements is cost effective and good policy. This corridor planning process, reflecting a balance of resource protection with landowner and community interests, has contributed to savings in Trail protection costs. Continuing to offer easements and tailor-making them to landowners' specifications should provide additional cost savings as the program continues.

RECOMMENDATION:

The project should continue its policy of offering landowners the choice of selling an easement instead of fee if adequate protection of the A.T. will result.

The NPS should conduct an analysis to determine the costs and management problems associated with easements vs. lands owned in fee.

D. LAND EXCHANGES

Overview:

Landowners can trade property or interests in property with public agencies or private organizations. Land exchanges are an attractive means of extending Trail protection because they usually require only a limited outlay of appropriated funds. States may provide one source of land for exchange and be willing to become more involved if encouraged to do so. Park Service policy directs that exchanges can be transacted if (1) the public interest is served by the exchange, (2) the land has been deemed suitable for exchange under the land use planning process, (3) the land is located in the same state as the non-federal land, (4) the land is under the jurisdiction of the Secretary of the Interior. The lands to be exchanged are to be of equivalent value and if not, payment can be provided to equalize value.

Advantages:

- Excess lands - Some lands acquired by the Service to help protect the Trail may be excess to basic Trail protection needs and could be disposed of in exchange for more needed property.
- Local tax rolls - Exchanges would allow productive use of excess lands and would return these lands to local tax rolls.
- Landowner negotiations - Exchanges offer an extra option to landowners who do not want to reenter the real estate market if an acceptable property for exchange can be found.

Disadvantages:

- Limited - Lands must be located in the same state and lands must be under the jurisdiction of the Secretary of the Interior in order for a transaction to occur.
- Candidates for exchange - There do not appear to be many parcels along the A.T. that would be acceptable for exchanges.
- Negotiations - It is usually difficult and time consuming to negotiate land exchanges.

Impacts:

- Financial - Savings in appropriated funds result from trading excess parcels and interests in land for areas needed for Trail protection.
- Landowners - Only a few landowners may stand to benefit from exchanges, when the details can be worked out, since there may be limits on the availability of parcels for exchange.
- Resource - Since property acquired through exchange usually involves the full interest, adequate resource protection would usually result.
- Management - No special management problems should result as long as the standard for the Trail protection is satisfied.

Discussion:

Exchanges can be useful in dealing with landowners on the A.T. to a limited extent. Because of the narrow protection corridor, there may not be many lands available for exchange and it may be difficult to locate parcels acceptable to landowners. Opportunities for exchange could be increased by allowing acquisition of access to some landlocked parcels, and by authorizing exchanges across state lines.

RECOMMENDATION:

The project should identify lands available for exchange and maintain an inventory of these parcels.

The NPS should consider seeking the authority to allow exchanges across state lines and seek amendment to H.R. 861 to allow purchase of access to parcels that are landlocked but suitable for exchange.

E. LEASEBACK/SELLBACK

Overview:

Leaseback - Subsequent to acquisition, the NPS may offer to lease lands acquired for specific non-conflicting purposes. The procedure involves a sealed bid process after which the previous owner may be granted the lease by equaling the highest bid. Either the previous landowner or another party obtains the right to use of the land in accord with the terms of the lease.

The lease will generally provide for an annual fee to be paid to the public agency. (This is one basic difference between a leaseback and a life or term estate. A life or term estate may also allow the landowner use of the land but the value of the reservation is deducted from the fair market value at the time of acquisition.) The rights of each party are spelled out in the lease. It can be an effective control where development might otherwise occur, and may be most applicable on lands needed to buffer basic Trail or park resources.

Sellback - Land acquired by the NPS may be sold to the former owner or another party after adding conservation restrictions to the deed. This allows land to be returned to the tax rolls, while protecting its recreation or conservation value. These restrictions are similar to those imposed by easements. Leaseback and sellback are similar in that restrictions run with the land. However, in a sellback arrangement, the resource managing agency usually does not retain the underlying fee interest in the land. The advantages and disadvantages associated with sellback are similar to those of leasebacks.

Advantages:

- Costs - Leasebacks and sellbacks do not reduce the amount of federal acquisition required. However, by allowing funds generated from leases or sales to return to the A.T. acquisition account, as proposed in H.R. 861, it would be possible for some acquisition funds to be recouped from lands previously purchased along the Trail.
- Protection - Since title is held in fee by NPS in a leaseback arrangement, there is strong land use control and resource protection. Sellbacks would be effective protection where certain uses are compatible with Trail management and where the Trail environment is being preserved as opposed to a need for public use. This approach would work well where the parties involved are interested in preserving existing uses and also own adjacent lands outside of the acquisition area.
- Land use - Customary and compatible uses of the land can continue.

Disadvantages:

- Administrative - Setting and collecting fees, monitoring use, and other aspects of administration require staff time and expertise that may not be available.
- Costs - The amount of revenue that could be generated through leasebacks or sellbacks along the Trail might not be significant.
- Public perception - The public and affected communities may find the leasing/selling of NPS lands difficult to understand, perhaps questioning the reason why these lands were purchased to begin with.

Impacts:

- Financial - Acquisition costs would not be reduced. The revenue generated from leases or sales could help recoup some of the acquisition expense and could provide a source of limited acquisition funds if H.R. 861 is enacted.
- Socio-economic - Some landowners and communities may object to lands being offered for leaseback or sellback, questioning the need for purchase in the first place. Those interested in leasing or buying may find it to be an economical way of getting access to a resource they need. The impacts on landowners and public agencies involved in these types of transactions need to be assessed further.
- Resource - A leaseback or sellback program could be consistent with protection for the Trail, provided that allowed land uses were compatible. In a lease, the title to the land remains in federal ownership, so strong control over the land can be exercised by the Service.
- Management - Leased lands should present no unusual problems for the Service or the volunteer clubs. Leases would probably occur in the more outlying areas of the corridor or on adjacent lands. Management costs may be minimized in that the land will be cared for by the lessee. If problems arise, the lease could be terminated. Sellbacks could result in the same types of management problems as described for easements.

Discussion:

Leasebacks can be particularly useful where the Service must purchase the land, but where customary use of the land could be continued. Revenue generated from the leases could be returned to the protection account if H.R. 861 were approved. This would allow some limited acquisition costs to be recouped. By retaining ownership of the land, NPS maintains strong control over the land and reduced management costs may result through private stewardship.

Sellback can be an effective tool where certain uses are compatible with Trail management objectives and where the Trail environment is being preserved as opposed to actual public access. This would work well where the parties involved are interested in preserving existing uses and also adjacent lands outside of the Trail corridor.

RECOMMENDATION:

The project should develop a system for identifying lands that have leasing or sellback potential.

NPS should encourage passage of H.R. 861, which would allow funds generated from leases or sales to be credited towards the A.T. protection account.

F. SELL OFF

NPS does not have the authority to sell lands already acquired which may be found to be in excess of those needed to protect the Trail. Such authority is proposed in H.R. 861. Some opportunity may exist to sell parcels or interests in lands in order to use the revenue generated to acquire other unprotected areas. H.R. 861 would provide a specific incentive to the Service to pursue this possibility.

The most likely candidates for sale would be lands that were acquired in total to satisfy landowners when only a portion of the tract was originally identified as being needed. These "remnants" often lack access and may not be marketable unless access is purchased or an adjacent landowner desires to expand an existing holding.

Advantages:

- Costs - Acquisition costs would not be saved; however, the proceeds from sales could generate revenue for the Trail protection account.
- Management - Management responsibilities would be eliminated on lands sold outright.
- Tax rolls - Lands sold would be returned to the tax rolls.

Disadvantages:

- Identification - There may not be many salable lands on the A.T. and it may be difficult to determine which lands could be considered for sale. Prospective purchasers might not have legal access.
- Landowners - Adverse reaction from some landowners who sold based on the rationale that the land was needed for protection could result.

- Process - A process for identifying parcels for sale and for marketing those parcels would need to be developed and administered.

Impacts:

- Financial - No savings to the protection effort would result unless proceeds from the sales returned to the acquisition account. Some investment in the property may have to be made, i.e., acquiring access.
- Socio-economic - Lands would be returned to local tax rolls; however, some landowners may react adversely, arguing that the lands should not have been purchased to begin with.
- Resources - Parcels that may be considered salable may be required for protecting the resource in the future. Development or use of lands sold off could present a future threat to the Trail corridor.
- Management - Management responsibility for lands sold would be eliminated.

Discussion:

Lands that may be considered excess along the Trail are likely to be quite limited. If excess land were identified, it would be desirable to sell it if proceeds could be returned to the Trail account.

In addition to authority to sell lands, authority to acquire access to some of these properties would be desirable. The costs of access acquisition should be more than offset by the increased value of land with legal access. The impacts of a sell-off program on the community and adjacent landowners needs further examination.

Another way to generate revenue from lands held by NPS may be to sell mineral or oil and gas rights. This could potentially be done if the process involved in using these resources did not have an adverse impact on Trail corridor lands.

RECOMMENDATION:

The Project Office should develop a process for identifying salable lands or interests in land as a step in determining the potential cost effectiveness of this concept.

The NPS should support H.R. 861 to encourage the sale of excess lands.

The authority to acquire legal access when needed should also be provided.

G. COOPERATION WITH PRIVATE CONSERVATION ORGANIZATIONS

Overview:

"Private protection", as used in this study, involves all techniques to protect the Trail that do not rely directly on public funding. Many of the techniques used by government are also available to private groups, including fee acquisition at full value, donations and bargain sales, easements, and exchanges, as well as a variety of "creative" techniques uniquely suited to 501(c)(3) nonprofit organizations. Such private groups often take the form of "land trusts", but may also include Trail clubs and other nonprofits.

Advantages:

- Private support - Since private protection does not have to rely on public funding, protection of at least some Trail lands can proceed in the absence of federal or state funds.
- Speed - Governmental land transactions tend to be slow-paced. In many situations, private organizations can move with greater speed to close a transaction.
- Voluntary transactions - Because private organizations deal only with willing sellers, landowners with whom they work are unlikely to have a negative reaction to the sale of land for the Trail.
- "Lesser evil" - Where the federal program with its condemnation authority is active, some essentially "unwilling" sellers may choose to deal with a private group rather than with the government.

Disadvantages:

The strengths of private protection are also its weaknesses:

- Voluntary transactions - Donations or bargain sales to private organizations are most likely where the landowner is in a position to realize a tax benefit from such a gift. These tracts are generally not ones that are threatened by imminent development or degradation; thus, the owners of less-threatened tracts are more likely to respond to this approach. In addition, recent changes in the federal income tax code mean that that tax advantages in donating land for "public benefit" are not as great as they were in previous years.

Where land can be purchased only at full value, nonprofit organizations must compete with all other potential purchasers. Where land is threatened by development, the selling price is usually high. Most private organizations have limited capital to commit to expensive acquisitions, and are particularly reluctant if the prospect for recouping their investment is limited.

In the case of landowners who are unwilling to sell at any price, private protection efforts are ineffectual.

- Capital - Raising sufficient private capital for land protection projects is difficult. The practice for many land trusts has been to arrange donations or bargain sales to the trust, with subsequent resale at full value ("take-out") to a public agency. In this fashion, trusts have been able not only to recoup costs, but build capital as well. For a number of reasons, it appears likely that federal agencies will become increasingly reluctant to "take-out" land trusts.

With this avenue for raising capital limited or foreclosed, trusts must attempt to recoup costs either through fundraising or through the sale of portions of their properties for limited ("creative") development. Both of these activities are labor intensive, time-consuming, and risky, although growing expertise with these techniques may broaden their usefulness.

- Priority - At this point, no land trust exists for the single purpose of protecting Appalachian Trail lands. Experience to date indicates that multi-purpose local land trusts, even those that have made a commitment to help protect the Trail, find it difficult to maintain the A.T. as a high priority in their programs.

Impacts:

- Financial, economic - As noted above, private protection strategies are most effective when coupled with an active federal acquisition program. When properties donated to nonprofits are in turn purchased by the federal government, savings may not be realized. In fact, the government may pay a premium for such properties: first, through the tax expenditure resulting from the deduction taken by the donor, and second, through the actual cash expenditure for purchase of the property.

To reduce the government's costs, the Appalachian Trail Conference and several cooperating local land trusts have agreed to earmark the net "gain" on sales of properties to government agencies for future A.T. acquisitions.

The government can realize substantial savings when land trusts do not resell donated properties to federal agencies. Such protection is not "free" however -- the deduction taken by the donor means that the government is sustaining a tax expenditure of up to 50% of the value of the donated property.

The only Trail protection that is "free" to the government occurs when a private organization uses no NPS or USFS preacquisition services, acquires the property at full value, and continues to hold title -- a situation which has not yet occurred on the Appalachian Trail.

- Socio-economic - Because private acquisitions are voluntary in nature and because they can sometimes proceed much faster than government transactions, land trusts and other nonprofits are likely to be well received by landowners.

Moreover, the federal and state tax deductions for charitable donations of land indicate that the gift of land to be held by qualified private organizations is itself an important social value endorsed by governments, notwithstanding the tax expenditure implications.

- Resource - So long as an adequate Trail corridor consistent with NPS design criteria can be protected, the impact on Trail resources should be essentially the same as that of federal protection. Private protection also offers the possibility of protecting lands adjacent to the corridor that could not be acquired justifiably by the Federal Government. There is a possibility, however, that poorly designed or sited "creative" development of adjacent lands by nonprofits in order to recoup costs could be incompatible with Trail values.

- Trail management - As explained earlier in this report, the Cooperative Management System is a remarkable network of volunteers working with agency personnel, local governments, and private land-owners to manage the Trail and its corridor. An early assumption in the Cooperative Management System was that, except where easements were to be negotiated, title to Trail corridor lands would eventually rest almost entirely in public hands -- primarily NPS and USFS, with substantial state holdings in some areas. These public agencies have generally assumed that the bulk of Trail and corridor management would be performed by the Trail clubs under the overall umbrella of the Appalachian Trail Conference. This arrangement is one with which the Trail community is comfortable because lines of authority and responsibility can be drawn fairly precisely.

There is some concern that the extensive ownership of Trail lands by nonprofit organizations unaffiliated with the management partners will complicate the cooperative management system. This uneasiness is based in part on an experience in which a section of the Trail in Connecticut was forced off land owned by a local trust because the trust perceived that public access to the A.T. would be detrimental to important natural resources on trust property.

If land trusts become more involved in holding title to A.T. lands, written understandings among all parties must be developed. These agreements would include an endorsement of the principles articulated in the "Comprehensive Plan" and in ATC's "Stewardship Manual", and could be a prerequisite for providing NPS pre-acquisition services to land trusts.

If carefully prepared, an agreement should satisfy the needs of all parties. It would assure NPS that the intent of the legislation to provide permanent protection for the Trail corridor is satisfied. For ATC, it would recognize the continuing leadership role of the volunteer Trail manager. And for the land trust, the agreement would provide assurances that the Trail will be managed to a widely-accepted, published standard.

Examples:

In Vermont, the A.T. Project has worked with the Ottauquechee Regional Land Trust (ORLT). To date, ORLT has assisted NPS realty specialists in their contacts with landowners, and has received the donation of two parcels of Trail land, which in turn the Trust has sold to the Park Service. Last fall, the Trust contacted all 90 remaining private landowners along the Trail in Vermont to determine their interest in dealing with the Trust instead of the Park Service. So far, only a few landowners have expressed any interest, but lack of ORLT manpower to promote the land trust alternative has been at least partly responsible for the lack of response. To assist this effort, the Appalachian Trail Conference made a grant to the Trust sufficient to provide a full time person for one year to work specifically on the A.T.

In Connecticut, the Housatonic Valley Association (HVA) has assisted the Park Service in making landowner contacts, and more recently, has begun its own land trust initiative. This effort has not yet borne fruit for the Trail, but hopes are high that HVA's attempts to work with small, local land trusts in the area will eventually provide some protection for the A.T.

The lack of substantive progress by these two land trusts is due in part to their competing priorities. For neither ORLT nor HVA is the Appalachian Trail the highest priority in their program. With limited time, money, and manpower, they have tended to focus on, for them, the more pressing issues of farmland preservation and watershed protection.

A single-purpose A.T. land trust is being considered by the Appalachian Trail Conference. ATC already has a modest land acquisition fund, and may seek to expand its protection capability substantially. The Conference is currently engaged in a professional study to determine the best way to proceed.

Discussion:

The effectiveness of private protection strategies for the Appalachian Trail depends largely on the presence of a well-funded federal land acquisition program. For example, if pre-acquisition assistance from Park Service A.T. land acquisition offices is not available, land trusts must spend substantial amounts of time and money getting accurate legal descriptions, surveys, and appraisals for a large number of tracts that are generally small and remote, and are often vaguely described in legal records. This initial commitment may deter some land trusts from getting involved in the A.T. program.

The federal authority to condemn lands along the Trail is critically important to the feasibility of private protection alternatives. Although used only as a last resort, the potential exercise of eminent domain by NPS is a major incentive for A.T. landowners to work with land trusts.

Private protection is clearly not a cure-all. Land trusts may play an important role as a supplement to a strong federal acquisition program. But if the federal effort is weakened, the effectiveness of private protection alternatives will also decline.

RECOMMENDATIONS:

Continue a strong federal land acquisition program that includes active involvement with private protection organizations in contacting land-owners and conducting lands transactions.

Stimulate mutual assistance ventures among existing and potential trusts along the Trail, including workshops and technical assistance.

Develop written agreements between NPS, ATC, and land trusts to ensure adequate protection for the Trail and the continued strength of the cooperative management system.

H. COOPERATION WITH STATE/LOCAL GOVERNMENTS

Overview:

Participation of state and local governments in protection of the Trail is as much a part of Trail tradition as is 60 years of volunteer involvement. Despite fears that the availability of federal acquisition money would discourage states from pursuing Trail protection programs, state programs remain active in Maine, Massachusetts, New Jersey, Pennsylvania, and Maryland. New Jersey has nearly completed its program with the NPS assisting in surveys, appraisals, and title evidence. Maryland remains committed to completing its program without federal support.

Assistance from local government is sought routinely. Several have entered into agreements with the Park Service or States to allow permanent use of municipal lands for Trail purposes. Others have indicated an interest in doing so in the future.

In the event that further Trail protection beyond the immediate Trail corridor is undertaken, state and local governments and private citizens will probably provide the initiative. As the need arises, local or state ordinances, easements, or conservation zones may be sought to protect adjacent lands.

Advantages:

- **Costs** - States can provide significant cost savings to the Trail protection effort, particularly if financed, at least in part, with state funds. Several states have exchanged lands for Trail corridor protection and may be able to do more. Local governments have provided for use of municipal land for the Trail through agreements.
- **Planning** - State agencies help by providing staff assistance and other support in planning the Trail route and in coordinating with state and local interests.
- **Constituency** - State and local agencies can promote feelings of stewardship and reinforce protection activities by demonstrating a commitment to federal Trail initiatives on the A.T.
- **Supplement** - State and local governments can protect adjacent lands in addition to the Trail corridor.

Disadvantages:

- **Federal incentives** - State and local governments usually need financial or technical assistance from the federal government as an incentive for their efforts.
- **Standards** - State and local governments may not be able to protect the Trail corridor to the standard anticipated in the Trails Act.
- **Priorities** - Priority at the state and local level is given projects that benefit state and local interests. National priorities are secondary.

Impacts:

- **Financial** - Federal acquisition costs can be reduced by encouraging states and local governments to become even more involved in the Trail protection effort. In order for this to be appealing, financial incentives may be necessary as well as technical assistance.
- **Socio-economic** - Since state and local governments are especially responsive to local interests, their involvement may tend to minimize adverse impacts on landowners and the community.
- **Resource** - In cases where state or local governments are acquiring lands for the Trail, adequate resource protection would be provided. Cooperative agreements which allow the Trail to cross publicly-owned conservation lands also seem to provide adequate A.T. protection. In cases where state or local governments use regulatory techniques to protect the Trail corridor, additional federal protection may be required to assure permanency. Regulatory techniques appear to be the most useful in protecting lands adjacent to the corridor.

• Management - If lands are protected by state or local governments, no special management problems would result. Coordination of management activities would be necessary and the protecting agency would participate in the Cooperative Management System. No difficulty in that respect is anticipated.

Examples:

State programs

- The existing Massachusetts, New Jersey and Pennsylvania programs were stimulated by Secretary Kleppe in 1976 with a \$1 million grant of State L&WCF from his contingency reserve.
- The Maine program depends on the continued generosity of landowners, but it has also used exchanges to good advantage and has a State zoning ordinance to assure short-term protection of the complete Trail route.
- Massachusetts has agreed to purchase about half of the unprotected route in that state and also assisted with negotiations for NPS acquisitions.
- Pennsylvania has protected 17 miles of the Trail since 1968 and retains the capability to make selective acquisitions through purchase or exchange should NPS efforts on key tracts falter. (New York and Virginia also retain an emergency acquisition capability, but to a more limited extent.)

Local government programs

- By acquiring trestles on an abandoned railroad right-of-way, the NPS helped the town of Damascus, Virginia complete a protected route for a hiker-biker trail and provide an improved route for the A.T. through the town. Town officials have also persuaded the owner of a critical tract nearby to cooperate with the NPS despite a previous unhappy experience with another federal acquisition program.
- The Borough of Hamburg, Pennsylvania, has recently signed a cooperative agreement with the NPS assuring permanent protection for the Trail for 9 miles across town watershed lands. In return, the NPS will try to acquire a few private inholdings along this route at a later time. Three localities (Warwick, New York; Carrabassett and Caratunk, Maine) have incorporated protection of the A.T. into their zoning regulations.

Discussion:

By coordinating with state and local governments, costs can be reduced and maximum benefits to all involved can result. The project must continue to provide incentives and act as catalyst to stimulate state and local protection efforts on the Trail. Stronger state and local ties may also increase the potential for their playing a role in controlling adjacent land use while meeting state and local objectives.

In addition to state and local corridor acquisition efforts, zoning may be helpful in protecting adjacent lands. Zoning is the principal regulatory technique for controlling land use at the state and local level. It involves imposing specific conditions regulating the development and use of specific parcels of land. Zoning is almost always a local function so a federal resource manager can only use it with the cooperation of the state or local government.

Zoning is rarely used for Trail protection. Only three local governments have used zoning as a tool for protecting the Trail. On the state level, the Maine Land Use Regulation Commission has developed a Recreation Protection Subdistrict which affords the Trail corridor a certain degree of protection from inappropriate types of land use. It is important to note, however, that it was determined by the Assistant Solicitor in 1979 that zoning of the A.T. does not provide the level of permanency of protection called for in the National Trails System Act.

RECOMMENDATION:

THE PROJECT SHOULD CONTINUE TO ENCOURAGE STATE AND LOCAL INVOLVEMENT IN THE TRAIL PROTECTION EFFORT BY PROVIDING TECHNICAL AND FINANCIAL ASSISTANCE WHERE POSSIBLE. THE PROJECT SHOULD ALSO WORK CLOSELY WITH STATE AND LOCAL GOVERNMENTS INTERESTED IN MODIFYING EXISTING REGULATIONS OR DEVELOPING REGULATIONS THAT WOULD CONTROL LAND USE IN AREAS ADJACENT TO THE CORRIDOR.

THE PARK SERVICE SHOULD CONSIDER DEVELOPING A MATCHING GRANT PROGRAM THAT WOULD ALLOW STATES TO COST SHARE IN THE TRAIL PROTECTION EFFORT. COSTS TO NPS COULD BE SAVED BY ENCOURAGING STATES TO FINANCIALLY AND THE MATCHING GRANTS WOULD PROVIDE A SUBSTANTIAL INCENTIVE FOR THEM TO DO SO.

