PART 5

Natural, Cultural, and Scenic Resources

CHAPTER 5 (A)

Resource Management

The Appalachian Trail contains many outstanding natural, cultural, and scenic features that need to be preserved and protected. There are many species of flora and fauna, some of which are threatened, or endangered, and a multitude of cultural and historic features characteristic of the Appalachian landscape.

Those natural, cultural, and scenic resources can be dramatically affected by human actions and natural processes. Damage may be caused by overuse, misuse, or poor design and maintenance of the footpath or its associated overnight facilities. External activities also may adversely affect the Trail by infringing on scenic and other values. Communication towers, timber harvests, and access roads on adjacent lands can have a significant effect on a view from the Trail. Such activities may affect water quality or bring incompatible uses onto corridor lands. Natural events like gypsy moth infestations can change the Trail's character. Resource values also can be enhanced by human actions, such as the maintenance or restoration of an open area or establishment of a vista.

Effective resource management can be defined as a set of actions, guided by an overall policy, taken to maintain or achieve a desired natural, cultural, or scenic condition. Resource management may involve active on-the-ground measures, or it may simply mean leaving an area alone and protecting it from external influences in order to allow natural processes to take their course. Although the federal and state land-managing agencies have primary responsibilities for managing natural and cultural resources on their lands, ATC and the Trail clubs play an important role in how these resources are managed along the Trail.

Existing Policy

ATC Policy—In November 1988, the ATC Board of Managers adopted the following policy for resource management:

> The Appalachian Trail Conservancy seeks to manage the natural, cultural, and scenic resources of the Appalachian Trail in a manner that preserves and protects these resources, while meeting its responsibilities for promoting the use and enjoyment of the footpath, its related facilities, and its surrounding corridor lands.
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> This policy is based on the following principles:
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> 1. The Appalachian Trail footpath is itself a resource of greater significance than component parts of the corridor. Preserving the continuity and integrity of the footpath and its environs is an essential consideration in management of individual natural, cultural, and scenic resources. This consideration should not cause other resource values to be overshadowed, however. The use and enjoyment of the footpath and surrounding corridor lands and the protection of individual resource values should serve as goals that complement and enhance each other. In the vast majority of cases, traditional Trail-management practices have served and will continue to serve to maintain and enhance the natural, cultural, and scenic qualities of the Trail environment.
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> 2. Management decisions should reflect a conscious awareness that activities and use levels on and adjacent to corridor lands affect Trail resources. In those rare instances where unique or key natural or cultural features are jeopardized by the

footpath's presence, adjustments in location or use will be made to protect resource values.

3. Trail lands shall be managed to promote their primitive, natural character. Exceptions may be made to manage the land for other special or distinctive resource values (*e.g.*, open areas, vistas, farmland, historic sites, sensitive species sites, *etc.*). In areas that have been adversely affected by human-caused disturbance (*e.g.*, a gravel pit, dump, *etc.*), management activities to restore an area to its original condition are encouraged.

4. The diverse character of Appalachian Trail lands is fundamental to the Trail experience. Preserving and promoting the broad range of traditional landscapes that the footpath passes through is essential. Resource management planning choices will consider the long-term diversity of the landscape (*e.g.*, open areas *vs.* forest) as well as the diversity (or richness) of plant and animal species.

5. Some activities are inappropriate on Appalachian Trail lands because of their adverse effect on resources and hikers. In order to preserve the quality of the Trail experience, measures will be taken to protect the footpath and surrounding corridor lands from improper uses. Minimum responsible land stewardship entails protecting the corridor from encroachments and uses that degrade Trail values (*e.g.*, dumping, timber theft, unauthorized roads, vehicle usage, *etc.*). Use of corridor lands for interpretation and other non-consumptive uses, including scientific use, will be encouraged when it is in keeping with primitive Trail values and consistent with club local management plans.

6. The cooperative management system provides the framework for volunteers, ATC staff and public land-management agency professionals, acting as partners, to manage natural, cultural, and scenic resources as integral components of the Appalachian Trail. Local clubs develop statements of resource management policy in their local management plans and, where appropriate, identify actions for the protection and enhancement of natural, cultural, and scenic resources within their Trail sections. The capacity of volunteers and partners to undertake management may vary. This requires balancing the physical possibilities with the limitations of people and budgets. ATC will continue to serve as a guarantor to public-agency landowners to ensure that minimum stewardship standards are met.

ATC's Board also stated that detailed, specific policies should be developed for the following resource values: threatened and endangered species, cultural resources, wilderness, wildlife, vegetation management, and management of unique geologic features and biotic communities.

In 2007, ATC launched the A.T. MEGA-Transect program, a Trail-wide environmental monitoring initiative aiming to:

1) Monitor key indicators of environmental health along the Trail;
2) Understand the meaning of available data by analyzing, synthesizing and modeling; and,
3) Share this knowledge to inform and engage others in the management and protection of the A.T. environment.

NPS Policy—The natural-resource policies of the National Park Service are aimed at maintaining,

rehabilitating, and perpetuating the integrity of the natural-resource values inherent in the parks, and providing the American people with the opportunity to enjoy and benefit from natural environments that have evolved through natural processes minimally influenced by human actions. These resource values include plants, animals, water, air, soils, topographic features, geologic features, paleontologic resources, and aesthetic values, such as scenic vistas, natural sounds, and clear night skies. The National Park Service will strive to understand, maintain, restore, and protect the inherent integrity of the natural resources, processes, systems, and values of the parks while providing meaningful and appropriate opportunities to enjoy them. The NPS recognizes that natural processes and species are evolving, and will allow this evolution to continue—minimally influenced by human actions.

The National Park Service also manages cultural resources to preserve and foster visitors' appreciation of archaeological and historical-resource values. Natural and cultural resources along the Appalachian Trail are protected and managed in accordance with the 1916 National Park Service Organic Act, National Trails System Act, and a host of environmental and other laws, including the Endangered Species Act, the National Environmental Policy Act, the Wilderness Act, and the National Historic Preservation Act.

Considerations for Planning

Inventory—Inventories of specific physical resources (such as open areas, historic sites, *etc.*) can be developed. More specific guidance is contained in the following chapters of the *Planning Guide* and in the NPS Appalachian Trail Resource Management Plan, September 2008.

Setting Trail Club Policy—While Trail clubs are not expected to have an over-all resource-management strategy, they should develop individual management policies on the specific resource values addressed in the following chapters. Clubs may wish to develop a short over-all statement of policy that acknowledges natural, cultural, and scenic resources as integral components of the Appalachian Trail and that emphasizes the club's desire to protect these resources.

Action Plan—No action plan is necessary, other than specific actions to address the resource-management issues outlined in the following chapters.

CHAPTER 5 (B)

Climate Change

Climate changes as a result of natural factors. However, human activities, primarily emissions of carbon dioxide as the result of the use of fossil fuels and changes in land use, and other greenhouse gases (methane, nitrous oxide, *etc*.) also are impacting the climate system. Human-induced climate change and the mitigation measures proposed to respond to it pose both short- and long-term concerns for management of the Appalachian Trail. Short-term concerns focus on the impacts of proposed mitigation measures, including the location of wind-energy projects and electric utility lines, and our own "carbon footprint." Longer-term, climate change could significantly alter the ecosystems through which the Trail passes and dramatically change the recreational experience it offers.

ATC first became involved in air-quality issues in 2001 when it helped form Hikers for Clean Air, a coalition of hiking organizations that was created following discovery of unhealthful levels of midsummer ozone along the higher elevations of the Appalachian Trail. The coalition worked on issues relating to the Clean Air Act and other relevant policies.

Since then, the broader issue of global climate change has gained worldwide attention and recognition. The energy and climate change subcommittee of the Stewardship Council—formed in 2006 to address wind power and the increasing numbers of proposals for energy developments such as powerlines and pipeline-crossings being proposed along the Appalachian Trail—began to address climate change following the Board's adoption of a policy on wind-energy facilities in 2007 [see Chapter 4 (G)].

While some scientists remain skeptical, there is widespread international scientific consensus that the ongoing buildup of human-caused greenhouse gases (GHGs) in the atmosphere threatens the stability of the climate system. Unless controlled in the next few decades, climate change would cause profound changes on all continents.

Climate effects are particularly noticeable in national parks like the Appalachian Trail because of their predominantly natural condition. ATC, its maintaining clubs, longstanding maintainers and staff have already noticed the incremental, but inexorable, effects of climate change. Ten of the hottest years recorded since 1850 have occurred in the last 15 years, with obvious, if anecdotal, impacts on our favorite places, plants, animals and pastimes. ATC has concluded that the potential impacts of global climate change, including long-term drought, extreme weather events, increased forest fires, and changes in the timing of the seasons may cause major disruption to the Appalachian Mountain ecosystem and threaten the health and sustainability of the Trail's flora and fauna. Furthermore, those impacts likely already are directly affecting and almost certainly will continue to affect the Trail footpath itself, due to increased treadway erosion and blowdown obstruction from severe storms, increased invasion of exotic species, and loss of water sources due to drought. Ultimately, climatic shifts and changes in the timing of seasonal events could alter and compromise the Trail experience.

Since its inception, ATC has advocated for the protection and preservation of diverse forest, bog, and other important and diverse ecosystems along the length of the A.T. It has fought to protect thousands of acres of forest lands and supports the protection of national and state forests and parks and designated wilderness areas. It will continue to work through its agreements with the National Park Service and other partners to achieve the highest standards of protection of the Trail and its corridor greenway.

Existing Policy

ATC Policy—Recognizing that the Appalachian Trail Conservancy has an obligation, as do all individuals and organizations, to help control greenhouse gas emissions, the ATC Board of Directors in November 2008 adopted a resolution regarding climate change that was recommended by the Stewardship Council. The resolution commits ATC to:

- Reduce its carbon emissions by implementing cost-effective energy technology and behavioral changes in its own operations.
- Educate ATC members and Trail visitors on climate and its wide-ranging effects on the A.T., and on the availability of mass-transit and other low carbon transportation alternatives for travel to trailheads.
- Monitor climate-change indicators and collect climate-relevant data through the A.T. MEGA-Transect project and other environmental monitoring programs.
- Recognize the value of A.T. forest lands for carbon sequestration, climate modification, and as a corridor to allow wildlife to adapt to climate change.
- Support policies of energy conservation and renewable energy technology where consistent with ATC's other policies.
- Work with like-minded organizations to promote carbon-reducing efforts and climate change education programs.

NPS Policy—The National Park Service teamed up with the Environmental Protection Agency's Office of Climate Change to develop its "Climate Friendly Parks" initiative in 2004–05. To date, ten parks are participating and have introduced shuttles, increases in bicycle use and walking, and training of both employees and the visiting public. However, as of February 2009, there has not been definitive guidance on climate change from agencies of the federal government or the Congress.

Considerations for Planning

Driving personal vehicles to reach the A.T. for Trail work and for recreation constitutes the largest source of greenhouse gas emissions from ATC operations and the visiting public. While much driving is unavoidable, ATC will promote carpooling wherever possible and the use of shuttle services for long-distance hikers. Furthermore, it will examine ways to reduce the number of miles driven for maintenance activities and urges the Trail clubs to address this challenge. In this way, the clubs and ATC will work to reduce GHGs cost-effectively without reducing our effectiveness in caring for the Trail.

A list of some transportation options to get to the Trail is available on ATC's Web site.

CHAPTER 5 (C)

Open Areas and Vistas

From the Appalachian Trail's beginning, the scenic vistas provided by open areas have been considered one of the most important features of the Trail experience. Over the years, many of those views have been lost through reforestation and abandonment to natural succession from former agricultural uses. Presently, trees and shrubs are rapidly growing in many areas along the Trail that were once open fields and meadows. The concern is that, unless active measures are taken to maintain these open areas, the landscape's diversity will be diminished and, with it, the Trail experience.

Management of open areas and vistas often requires active measures, including mowing, grazing, and controlled burning. Careful planning is needed in order to ensure that the desired results for these landscapes are achieved. Some Trail clubs have found a site-specific plan particularly helpful for open-areas projects. In some cases, agencies issue special-use permits for haying, grazing, and crop production to maintain views or pastoral landscapes.

Existing Policy

ATC Policy— In 1995, the ATC Board of Managers adopted the following policy on open areas and vistas:

1. ATC and the A.T.-maintaining clubs shall give the management of balds, fields, and vistas a high priority and address it through the local management planning process.

2. ATC shall develop, as quickly as possible, management guidelines to assist the clubs, seeking out the knowledge and expertise of the NPS, USFS, and other sources.

3. As a first step, ATC, in consultation with clubs and management partners, will undertake an inventory of the open areas, including balds, fields, meadows, pastures, and vistas. This inventory should include historic balds and fields which might be reestablished, and open areas, including viewpoints, which may not be on the Trail but would be easily accessible with signs and side trails.

4. Management considerations should include hiker experience, resource protection, agency policies, ecological sensitivity, and historic and current use patterns. Some sites may require working with the Appalachian Trail Park Office (or other agency partners) on an environmental assessment.

5. Management actions should be specifically tailored to each site according to its unique blend of historic, biological, geographic, aesthetic, and other qualities and limitations. Methods, including mowing, grazing, burning, hand cutting, or the use of herbicides, should be determined considering the above site characteristics as well as potential environmental impacts, accessibility, cost, and long-term feasibility.

6. ATC, the clubs, and other partners will work together to mobilize resources needed for maintaining these areas, including local expertise, financial support, volunteer labor, and local farmers or others who will mow, graze, or otherwise continue former agricultural uses under special-use permits or contracts.

7. Management activities should be monitored and evaluated periodically and adapted to meet changing conditions or to reflect new knowledge and technology.

8. Records, including photographs, should be kept to document management activities.

NPS Policy—The *A.T. Comprehensive Plan* states:

> Open areas and vistas are a particularly pleasing element of the Appalachian Trail. Management activities needed to preserve these characteristics are encouraged, so long as they reflect sensitivity to other Trail values.

Considerations for Planning

Inventory—Open areas and vistas should be located for the club's Trail section using maps, guidebooks, knowledgeable people, and field trips. If possible, the Trail club should identify the relative importance of the site as a scenic resource and whether or not active measures are needed to keep the site open.

Setting Trail Club Policy—Trail club policy should state the club's general approach to determining which areas it intends to keep open and what methods it intends to use to keep each area open.

Action Plan—Maintenance of an existing open area can be carried out by Trail club volunteers, work crews, or local farmers under special-use permits. These activities should be noted in the Trail club's annual work plan. Reestablishment of a grown-over area that was once open, or an area that is only partially open, requires a significant amount of advance planning. Since vegetation management by cutting, burning, or grazing involves active intervention, surveys for cultural and biological resources often are required before any on-the-ground work. Often a year or more is needed to coordinate with all of the parties involved in a large-scale, open-area restoration project. A Trail club needs to assess its capabilities for undertaking a project. Many clubs have requested scientific and technical assistance, as well as money, equipment, and crew support. Agency partners and ATC can assist both financially and technically in open-areas projects.

CHAPTER 5 (D)

Timber Management

Prior to the Trail-protection effort, the lands adjacent to the footpath were managed primarily for timber products such as saw timber, pulpwood, and firewood. In many areas adjacent to the Trail corridor, timber management remains the predominant use of adjoining private and public land.

A well-planned timber harvest near the Appalachian Trail can have little or no discernible impact upon the Trail. If poorly planned or carried out, however, a timber harvest can have dramatic, long-term effects on water, soils, and visual-resource values. The removal of vegetation and the soil disturbance associated with careless construction of roads and skid trails can cause a substantial increase in water run-off and erosion. The removal of part or all of the vegetative overstory in an area that can be seen from the Trail also can have a significant effect on the scenic environment of the Trail. Timber access roads can create visual scars or allow access to the Trail for all-terrain vehicles, horses, and other incompatible activities.

Most of the Trail is located on National Park Service or national forest lands that are managed specifically to protect and provide a premier backcountry recreational experience. The National Park Service does not allow consumptive utilization of park resources, including timber resources, on any lands within the National Park system. The U.S. Forest Service classifies lands within the A.T. management or prescription area as unsuitable for commercial timber production. The intent of both agencies is that the lands in the Trail corridor are to be managed for their recreational values, not their timber values.

Existing Policy

ATC Policy—Appalachian Trail Conservancy guidance is consistent with and supportive of federal agency policies regarding timber management near the A.T. ATC policy guidelines for national forest lands recognize that timber harvest is a legitimate use of adjacent national forest lands, provided Trail values are taken into account during the planning process. ATC encourages Trail clubs and local ATC representatives to work with land-managing agencies to review, comment on, and modify area-specific plans for management of individual timber stands adjacent to or visible from the Trail.

In June 1989, the ATC Board of Managers adopted the following policy statement regarding timber management on national forest lands:

> The Appalachian Trail Conservancy endorses the use of the U.S. Forest Service Visual Resource Management *[now Scenery Management]* System and the consultation procedures described in the *Forest Service Manual Supplement for the A.T.* (FSM 2353) and used by the U.S. Forest Service, ATC, and the Trail-maintaining clubs for assessing the impacts of timber management activities upon the Appalachian Trail. ATC will participate and encourage participation by Trail-maintaining clubs in review of forest plans and proposals for management actions on national forest lands.
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> The Appalachian Trail Conservancy recognizes that timber harvesting is a legitimate use of national forest lands. However, it is the position of the Appalachian Trail Conservancy that timber harvesting has the potential to cause adverse impacts to the scenic, aesthetic, recreational and natural resource values of the Trail, and that timber harvesting should only take place in a manner that does not detract from Trail values.

Vegetative management activities that are designed for the purpose of enhancing or maintaining the scenic, aesthetic, or recreational values of the Trail, including vista maintenance, balds clearing, and wildlife habitat improvements, should only take place after consultation between the appropriate management partners. Timber harvests, in contrast to vegetative manipulations designed to enhance Trail values, should be prohibited within the foreground area (as defined in *National Forest Landscape Management*, Volumes 1 and 2, U.S. Department of Agriculture Numbers 434 and 462) of the Appalachian Trail.

Protection of the scenic environment of the Trail may require modification of proposed timber management actions in the middle-ground and background zones (also as defined in *National Forest Landscape Management*, Volumes 1 and 2). ATC will support recommendations that protect and enhance the visual quality of the Trail.

ATC will work toward a consistent, Trail-wide interpretation of the USFS [Scenery Management] System that ensures maximum protection of the scenic and aesthetic values of the Trail and endorses a cooperative program to map the visual zones from the "optimal route" of the Appalachian Trail, as determined by the Optimal Location Review process, for the entire length of the Trail where the viewshed encompasses national forest lands.

In 1982, ATC adopted the following guidelines with respect to NPS corridor lands. Guideline 5 was amended by the Board in 2008:

1. Forest-resource management to enhance the Trail (*i.e.,* noncommercial vegetation manipulation for vistas, balds, *etc.*) is an integral part of corridor land management. Local clubs shall have the discretion to practice such activities as they feel are necessary to manage the forests to protect the Trail and its environs.

2. Management of forest resources to protect and enhance the A.T. corridor shall be considered as part of local management planning to ensure that such activities are compatible with the goals of the ATC and take into consideration other noncommercial forest resource-management activities.

3. Local clubs should consult periodically with the ATC and the NPS on forest resource-management activities, practices, and plans to ensure that they continue to be consistent with over-all A.T. corridor planning and management.

4. Forest resource management for timber (*i.e.*, commercial harvest of firewood, saw timber, or pulpwood) will be allowed only under exceptional circumstances and only when local clubs can show that such activity is consistent with the goals of the ATC.

5. Plans by local clubs to undertake timber management activities must be incorporated into an approved local management plan for the affected area.

6. Before any club can undertake forest-resource management for timber (*i.e.*, commercial timber harvesting), the ATC and the NPS must resolve the question of who may collect and use the proceeds from any such commercial activity.

7. This policy shall apply specifically to corridor lands owned in fee by the National Park Service.

These guidelines are subject to NPS rules and regulations regarding such management.

Considerations for Planning

NPS Policy—As a general policy, NPS does not allow *consumptive* utilization of nonrenewable or renewable park resources, including timber resources. This policy does *not* prohibit vista clearing, management of open areas and meadows, removal of exotic species, restoration of natural plant communities, or removing trees to protect the safety of Trail users.

Inventory—No specific inventory of timber types is necessary. Sensitive or unique forest resources, such as old growth stands, should be noted. A summary of land-managing agency policies regarding timber management would assist the Trail club in developing policy.

Setting Trail Club Policy—Trail club policies should be developed in consultation with the club's land-managing agency partner. In general, Trail club policies should seek to limit any timber activity that would adversely affect the Trail.

Action Plan—In areas where neighboring landowners or land-managing agencies have active timber-management programs on adjoining lands, a Trail club member or several club members should keep up to date on those programs. Club members can ask to be placed on U.S. Forest Service mailing lists for notification of upcoming timber harvests and can obtain copies of environmental assessments and other documents on request. Club members can also contact state agencies with active timber-management programs and request notification of any timber-harvest proposals.

CHAPTER 5 (E)

Pest Management

Attempts to control pest outbreaks present one of the most controversial aspects of management of Trail lands. Many types of native and introduced pest species are present on Appalachian Trail lands and lands adjoining the Trail. Forest pests are the cause of some of the most dramatic naturally caused impacts to the Trail environment. Defoliators such as the spruce budworm, hemlock woolly adelgid, and gypsy moth go through cyclic outbreaks or spread to new geographic regions. Diseases such as Dutch elm disease progress in much the same fashion as did chestnut blight 60 years ago, resulting in the disappearance of tree species from their natural range. Other than the obvious negative visual effects that insect and disease outbreaks can have on the Trail environment, significant economic impacts to surrounding areas occur as timber inventories drop. Nearby residential owners are frequently outspoken in their demands that control measures be undertaken.

Pest management in agricultural areas, such as the Cumberland Valley in Pennsylvania, is also a significant concern for local Trail managers. Pesticides are an important component of many ongoing farming operations, including many adjacent to or on Appalachian Trail lands with reserved rights or special-use permits. Use of pesticides has the potential for serious conflict with the recreational use of the Trail.

Existing Policy

ATC Policy—ATC has no formal policy on pest management, other than a brief reference as part of its policy on agricultural use (see below). In past statements on specific pest-management controversies, ATC has represented the general interests of hikers by seeking to ensure that precautions are taken before aerial spraying of pesticides. ATC has supported active measures to protect Trail users, including posting temporary signs during aerial spraying and protection measures for open water supplies. ATC also has advocated the use of biodegradable pesticides, manual, site-specific application of pesticides, and other approaches that minimize adverse environmental impacts.

As part of its policy on agricultural use [see Chapter 5 (L)], ATC adopted the following statement on pest management:

> Pest-control measures should comply with integrated pest-management recommendations for the use of pesticides and herbicides as set forth by the land-managing agency (or its designee).

NPS Policy—Pests are living organisms that interfere with the purposes or management objectives of a specific site within a park or that jeopardize human health or safety. Decisions concerning whether or not to manage a pest or pest population will be influenced by whether the pest is an exotic or a native species. Native pests will be allowed to function unimpeded, except as noted below.

The NPS may control native pests to: (1) conserve threatened or endangered species, or unique specimens or communities; (2) preserve, maintain, or restore the historical integrity of cultural resources; (3) conserve and protect plants, animals, and facilities in developed areas; (4) prevent outbreaks of a pest from invading uninfested areas outside the park; (5) manage a human health hazard when advised to do so by the U.S. Public Health Service (which includes the Centers for Disease Control and the NPS public health program); and (6) to otherwise protect against a significant threat to human safety (2006 NPS *Management Policies*, 4.4.5.1).

The National Park Service conducts an integrated pest management (IPM) program to reduce risks to the public, park resources, and the environment from pests and pest-related management strategies. Integrated pest management is a decision-making process that coordinates knowledge of pest biology, the environment, and available technology to prevent unacceptable levels of pest damage by cost-effective means while posing the least possible risk to people, resources, and the environment.

In control of gypsy-moth populations, NPS has supported the use of Bt (*Bacillus thuringiensis*), a biological-control agent, where its use will be effective. Generally, Bt is considered most effective when treating isolated outbreaks or areas with lower gypsy-moth population levels. Chemical use for control of gypsy moth has been discouraged, although there have been instances when the chemical Dimilin has been used in conjunction with Bt on NPS-acquired Trail lands.

Considerations for Planning

Inventory—Gaining access to information regarding insect and disease problems and proposed control activities is an important first step in management planning. The local Trail club needs to be aware of what agencies are responsible for carrying out pest-management programs at the state and local level, and what current pest problems the agencies are working to control.

Setting Trail Club Policy—The Trail club should identify in general terms when and where it would concur in application of pesticides on Trail lands (if at all) and what general response it will have regarding pesticide use on adjoining lands. The Trail club also should identify actions it would undertake to provide suitable warnings to hikers of pending aerial pesticide spraying.

Action Plan—In many areas, Trail clubs can encourage public agencies not to treat sections of the A.T. by aerial spraying because of human health and safety conflicts on adjoining private lands. In vast areas of forest land, such as Maine, it is difficult to delineate these areas so that they can be identified and avoided from the air. If spraying is to occur, hikers should be warned of potential hazards. This can be accomplished by posting temporary notices at Trailheads, shelters, or other appropriate places and by placing notices in local papers. Other than noting actions that the Trail club is willing to perform, no further action plan is necessary.

CHAPTER 5 (F)

Threatened and Endangered Species

The terms “threatened” and “endangered” pertain to the specific legal status of a plant or animal species as designated by the secretary of the interior, under the authority of the Endangered Species Act of 1973, following a recommendation by the U.S. Fish and Wildlife Service.

An endangered species is one that is close to extinction throughout all or a significant part of its range. A threatened species is one likely to become endangered in the near future. The Endangered Species Act prescribes specific procedures for determining the eligibility of a species for threatened or endangered status. The process is a long one, requiring publication of a notice in the *Federal Register*, consultation with governors of affected states, and other safeguards. Other terms are used to describe the relative population of a species, including “rare,” “relict,” and “sensitive” species. These latter terms do not give a species any legal protection under the Endangered Species Act. They do, however, provide a general indication of the size of a local population.

Threatened and endangered species are provided expansive protection from federal action under Section 7 of the Endangered Species Act, which states in part:

> All federal departments and agencies shall, in consultation with and with the assistance of the Secretary [of Interior], utilize their authorities in furtherance of the purposes of this act by carrying out programs for the conservation of endangered species and threatened species… and by taking such action as is necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species and threatened species or result in the destruction or modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with the affected states, to be critical.

This provision imposes significant constraints on federal activities, including actions that take place on federal lands and actions that might require federal permits, licenses, or funds.

Between 1989 and 2001, ATC, ATPO, and the U.S. Forest Service administered comprehensive natural-heritage inventories (often prepared by state natural-heritage offices under ATC contract) along the Trail. More than 2,100 populations of rare, threatened, and endangered species (plants and animals) and rare or exemplary natural communities have been identified at approximately 520 sites along the Trail. Monitoring programs, primarily for rare, threatened, and endangered plants, have been established in each of the 14 A.T. states, and more than 200 A.T. volunteers have been trained to monitor and report on those populations.

Existing Policy

ATC Policy— In April 1989, the ATC Board of Managers adopted the following policy:

> The Appalachian Trail Conservancy recognizes the importance of maintaining and enhancing the continued existence of threatened and endangered species and the obligations imposed by federal statute upon federal agencies (and by state law upon state agencies) for protection of threatened or endangered species. It is the policy of ATC to support and endorse efforts to ensure and promote the existence of federally listed, state listed, locally listed, and candidate threatened or endangered species. ATC also believes that its principal

> mission, which is to protect and promote the Appalachian Trail, can aid efforts to maintain and enhance the existence of threatened and endangered species. As a matter of policy, ATC is confident that the Trail can coexist with occurrences of threatened or endangered species without adverse impact to the species. Should conflicts arise, ATC will resolve matters on a case-by-case basis through consultation with its management partners and other concerned parties.
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> ATC will seek to ensure that its actions and the actions of Trail-maintaining clubs do not destroy, modify, or adversely affect threatened or endangered species or their habitat. ATC will support and cooperate in efforts by federal agencies, state agencies, and other concerned parties to inventory occurrences of threatened or endangered species on Trail corridor lands. Except in unusual circumstances where public notification is necessary to promote the existence or reestablishment of threatened or endangered species (such as a peregrine falcon hacking project), ATC will not publicize, or make available to the general public, information regarding the existence or location of any population of threatened or endangered species. ATC will further emphasize cooperation with agency procedures for review of proposed surface-disturbing activities (such as relocations or shelter-construction projects) and ensure that Trail planning and design take into account any potential for impact to threatened or endangered species prior to surface disturbance.

In November 1987, ATC adopted the following policy statement with respect to peregrine falcons:

> The Board of Directors of the Appalachian Trail Conservancy applauds and supports efforts, both public and private, to reintroduce and protect the peregrine falcon on A.T. lands and urges the A.T. community to support this effort. The Board of Directors recognizes that protection efforts may require temporary relocations of short sections of the Trail and or short-term limitations on access to certain sections of the Trail to hikers. In selecting sites for release efforts, the responsible organization(s) should consider: (1) limiting potential conflicts with other users, and (2) potential problems in controlling public access to the release site. The Board of Directors requests that, when falcon release or protection efforts potentially involve A.T. lands, the responsible organization(s) include representatives of the Trail community at the earliest stages of the decision-making process. This is in recognition, not only of the responsibilities of ATC and the Trail community for Trail lands, but also in recognition of the assistance the Trail community can give in site selection and efforts to limit disturbance at a site.

NPS Policy—The NPS will survey for, protect, and strive to recover all species native to national park system units that are listed under the Endangered Species Act. The NPS will fully meet its obligations under the NPS Organic Act and the Endangered Species Act to both proactively conserve listed species and prevent detrimental effects on these species. To meet those obligations, the NPS will:

- Cooperate with both the U.S. Fish and Wildlife Service and the NOAA [National Oceanic and Atmospheric Administration] Fisheries to ensure that NPS actions comply with both the written requirements and the spirit of the Endangered Species Act. This cooperation should include the full range of activities associated with the Endangered Species Act, including consultation, conferencing, informal discussions, and securing all necessary scientific and/or recovery permits;

- Undertake active management programs to inventory, monitor, restore, and maintain listed species' habitats; control detrimental nonnative species; manage detrimental visitor access; and

reestablish extirpated populations as necessary to maintain the species and the habitats upon which they depend;

- Manage designated critical habitat, essential habitat, and recovery areas to maintain and enhance their value for the recovery of threatened and endangered species;

- Cooperate with other agencies to ensure that the delineation of critical habitat, essential habitat, and/or recovery areas on park-managed lands provides needed conservation benefits to the total recovery efforts being conducted by all the participating agencies;

- Participate in the recovery planning process, including the provision of members on recovery teams and recovery implementation teams where appropriate;

- Cooperate with other agencies, states, and private entities to promote candidate conservation agreements aimed at precluding the need to list species;

- Conduct actions and allocate funding to address endangered, threatened, proposed, and candidate species.

(2006 NPS *Management Policies*, 4.4.2.3)

Considerations for Planning

Inventory—The Trail club should contact the NPS Appalachian Trail Park Office to determine if there is a natural heritage inventory for its Trail section. ATPO can provide additional information on the natural heritage inventory and monitoring program to interested members of the Trail community.

Setting Trail Club Policy—The Trail club policy should note that the club will check with agency partners prior to any major action, such as a relocation, shelter construction, or open-areas project, to ensure that its actions do not affect threatened or endangered species. (This is done automatically on National Park Service and U.S. Forest Service lands as part of the environmental assessment review of major projects.)

If the Trail club is monitoring natural heritage sites as part of its A.T. management responsibilities, it should be stated in the Trail club's local management plan.

Action Plan—The Trail club's monitoring program for natural heritage sites should be included as part of the club's annual plan. A detailed site-specific action plan must be developed if it is necessary to take any direct action (such as mowing or prescribed burning) to protect a population of a threatened or endangered species. Normally, such plans would be developed by the land-managing agency partner in consultation with the state natural-heritage program and the U.S. Fish and Wildlife Service.

CHAPTER 5 (G)

Wildlife Management

The natural habitats along the Appalachian Trail support a great variety of wildlife. In most cases, the narrowness of the Trail corridor precludes management practices that will significantly enhance habitat to a point of improving a species' over-all health, distribution, or range. However, in areas where there is increasing pressure from development, the corridor may provide an important source of forage and cover that sustains populations of small mammals and birds. The corridor can provide critical nest and den sites for species such as eagles, hawks, falcons, and waterfowl. The Appalachian Mountain ridgeline is also an important flyway for the migration of raptors. Several significant observation points, such as Pennsylvania's Hawk Mountain Sanctuary, are located along the Trail.

Existing Policy

ATC Policy—ATC does not have a formal policy regarding wildlife management. In general, ATC is supportive of agency programs and practices for maintaining and improving wildlife habitat, provided these activities do not conflict with primary Trail purposes. ATC provides information on sites along the Appalachian Trail where exceptional wildlife viewing opportunities exist to the authors of state wildlife viewing guides.

NPS Policy—The National Park Service policy is to perpetuate native species (those that occur due to natural processes and not species that have been moved into the area). Natural processes are relied upon to regulate populations of native species to the greatest extent possible. Nonnative species are not allowed to displace native species if this displacement can be prevented by management. Native animal life in the NPS system is protected against harvest, removal, destruction, harassment, or harm through human action, except where (1) hunting or trapping are permitted by law; (2) fishing is permitted by law for either sport or commercial use or is not specifically prohibited; (3) control of specific populations of wildlife is required for the maintenance of a healthy park ecosystem; or (4) removal or control of animals is necessary to safeguard human health and safety.

Considerations for Planning

Inventory—Clubs may wish to identify important habitats and exceptional wildlife-viewing areas. Club members should be aware of state hunting seasons and regulations, and may wish to contact state wildlife officials to ensure that they are aware of the status of hunting on Trail lands [see Chapter 4 (D)].

Setting Trail Club Policy—A Trail club policy statement on wildlife simply needs to recognize the jurisdictions of the land-managing agencies and indicate general club policy on measures to improve habitat on A.T. lands.

Action Plan—Unless the Trail club plans to undertake an open areas project for wildlife habitat improvement, no action is necessary.

CHAPTER 5 (H)

Vegetation Management and Reclamation

Vegetation management—the removal, control of, or in some cases, the promotion of plant species—plays a large role in Trail construction and maintenance. Vegetation management involves the manipulation of plant species or habitat in order to meet a desired goal, which may range from simply keeping the footpath passable to maintaining an open landscape. It may mean encouraging the conditions necessary for a desired species (such as some flowering plant or rare species) to thrive or the control or removal of exotic or unwanted plants (poison ivy or nettle) on the footpath or around a shelter.

Restoration or reclamation of disturbed sites is a less well-known area of land management. Here the goal is to return disturbed, eroded, or otherwise damaged areas to as near their previous appearance as possible. Reclamation projects on the Trail may range from mowing open areas to reseeding overused campsites, cleaning silted springs and polluted streams, repairing erosion caused by poor Trail design, and returning abandoned farm fields to woodland or meadow.

Trail managers may employ a variety of vegetation-management methods and tools, including manual methods (scythes and brush cutters), mechanical methods (mowing, brush-hogging), chemical methods (application of herbicide), prescribed fire, and biological methods (livestock grazing). In areas heavily impacted by overnight use, camping may be prohibited or restricted to designated areas to give damaged vegetation an opportunity to recover.

Existing Policy

ATC Policy—ATC encourages the use of vegetation-management practices that will protect, enhance, or restore an environment surrounding the Trail that is compatible with Trail values. In April 1989 the ATC Board of Managers adopted the following policy statement:

- The most common vegetation-management practice on Appalachian Trail lands will be to take no action, other than routine actions necessary to keep the footpath open.

- Landscapes and plants will be modified only when necessary to meet approved objectives as identified in the local management plan for the area. Active vegetation-management practices may be necessary to maintain, protect, or restore significant cultural landscapes, scenic resources, or plant and animal habitat. Examples include agricultural lands, open areas, vistas, and sensitive-species habitat.

- Vegetation-management practices should minimize long-term negative impacts to the aesthetic qualities of the Trail. At the same time, the selection of the most appropriate practice must minimize the negative effects to natural resources, such as soil and water.

- Selection of vegetative management practices must recognize the limitations of volunteer personnel and funding levels.

- When active vegetation-management methods (beyond routine maintenance actions) are to be employed, a site-specific plan that takes into account local physical, biological, and social conditions will be developed.

- In areas that have been adversely affected by prior human activity, active measures may be employed to restore an area to a natural condition. These sites may include dumps, structures, gravel pits, roadbeds. Native plants will be used in the restoration process, except in extraordinary circumstances where management objectives dictate the use of nonnative species.

- In general, measures will not be undertaken to repair damage caused by landslides, floods, hurricanes, or fires, unless required for hiker safety, for reconstruction of the footpath or a related facility, or for protection of soil and water resources.

- Active measures may be used to control the invasion of nonnative (exotic) species, particularly when they are a threat to a significant natural resource, scenic resource, or cultural landscape.

- Native vegetation may be planted or cultured to screen the Trail from negative visual influences and noise caused by nearby residences, roads, commercial centers, and utility structures.

- Herbicides should not be used for routine maintenance. Herbicides may be used in exceptional circumstances, for site-specific purposes only, where other methods are deemed ineffective for achieving a desired condition. Herbicide use shall require consultation and approval by the local Trail club, ATC, and the agency partner. Herbicides shall be used only in a manner and under circumstances specifically approved by the land-managing agency.

- Hikers should be notified of any major vegetation-management activities (balds and open-areas clearing projects, prescribed burns, *etc.*) by use of temporary signs, ridgerunners, and other public notification procedures as appropriate.

- Activities will be coordinated among the local Trail club, ATC and the local agency partner.

NPS Policy—As opposed to areas damaged by man, NPS directs that repair and reclamation of natural disturbances (fires, landslides, and floods) be kept to a minimum. The agency considers such events to be part of the natural cycle of things and will let areas recover naturally whenever possible.

The National Park Service will reestablish natural functions and processes in parks unless otherwise directed by Congress. Landscapes disturbed by natural phenomena, such as landslides, earthquakes, floods, hurricanes, tornadoes, and fires, will be allowed to recover naturally unless manipulation is necessary to protect other park resources, developments, or employee and public safety. NPS will seek to return such disturbed areas to the natural conditions and processes characteristic of the ecological zone in which the damaged resources are situated.

The following vegetation management actions may be undertaken if specific criteria are met:

- Encouragement of certain types of plants for aesthetic, wildlife, or vegetation-management purposes;
- Maintenance of certain types of vegetation for desired agricultural or livestock purposes;

- Vegetation management to increase the ability of heavily used areas to withstand recreational use;
- Retention or development of open areas, meadows, and vistas;
- Removal of man-made features, repair of natural slopes, and replanting of native plants; and,
- Repair of areas damaged by fire-fighting activities.

In addition, reclamation may be undertaken to remove exotic species, contaminants, and nonhistoric structures or facilities, restore abandoned mineral lands, abandoned or unauthorized roads, areas overgrazed by domestic animals, or disrupted natural waterways, and reclaim areas disturbed by management activities (such as hazard-tree removal, construction, or sand and gravel extraction) or public use.

Considerations for Planning

Inventory—Restoration that may be required because of overuse, poor treadway or facility design, or even natural calamity should be done in close consultation with the other management partners. Identification of sites needing work, such as heavily eroded Trail sections, overused and trampled campsites, landslides, or eroding stream banks, should be identified through the Trail-assessment process.

Setting Trail Club Policy—Trail club policy should follow agency guidelines and mandates. The Trail club may wish to identify its view of the future appearance of the Trail and recognize that active measures may be necessary to stabilize soils and maintain a specific vegetative cover. Local Trail managers must evaluate and determine whether natural changes will be permitted or whether they desire to manage vegetation in an area towards a specific goal, such as converting an overgrown pasture into an open landscape.

Action Plan—Reclamation efforts should involve site-specific plans and actions. Areas needing work will fall into two general types: restoration due to man-caused damage and overuse, and actions to restore or change existing habitats. Plans should emphasize long-term solutions, reducing soil erosion, use of native plants, and directing hikers away from the site. Corrective measures should involve proper Trail and facility design and construction. The actual reclamation of a site should be developed through a plan involving the Trail club and the agency partner. The agency partner is most likely to have much of the technical expertise to make sure a workable plan is developed.

CHAPTER 5 (I)

Cultural Resources

The lands crossed by the Appalachian Trail have a rich history. Parts of the Trail were major travel routes for Native Americans and for settlers pushing west to explore the new frontiers of our country in the 18th and 19th centuries. Many of the springs, campsites, gaps, and lookouts along the Trail were used by earlier travelers and settlers. Those sites, and the objects and other physical evidence left behind by these travelers and settlers, are an important part of our cultural heritage.

Cultural resources can range from individual artifacts—arrowheads, tools, bullets, housewares and other items for human use—to structures and large areas of land. Historic campsites, farms, battlefields, and other broad areas of human occupation or use also are important to the historian or archaeologist. The Appalachian Trail itself is an important part of our nation's heritage.

Although cultural-resource sites are vulnerable to gradual destruction from exposure to the elements, the most significant impacts usually result from man's activity. Cultural sites can be affected by surface-disturbing activities, such as constructing treadway for a relocation or building a new shelter. They can also be affected simply by opening a new area to public use.

The most dramatic impacts result from vandalism. Vandalism can take many forms—graffiti [see Chapter 4 (C)], removal of artifacts, or destruction of unoccupied buildings and other structures. Amateur "pot hunters" can often make substantial profits by removing and selling artifacts from an archaeological or historic site on public lands. As a result, professional archaeologists are often cautious about releasing information on the location and importance of known cultural sites.

Existing Policy

ATC Policy—In April 1989, the ATC Board of Managers adopted the following policy statement regarding protection of cultural resources:

> The Appalachian Trail Conservancy (ATC) seeks to preserve and protect cultural-resource sites, including those that are nominated, eligible, or potentially eligible for the National Register of Historic Places. To this end, ATC will seek to ensure that its actions, in concert with the actions of Trail-maintaining clubs and agency partners, do not adversely affect any cultural-resource site eligible or potentially eligible for such designation.
>
> The Appalachian Trail Conservancy recognizes cultural resources as an integral part of the Trail environment and the obligations that are imposed by federal statute upon federal agencies (and by state law upon state agencies) for protection of cultural resources. It is the policy of ATC to support and endorse efforts to protect and enhance cultural resources located on or adjacent to the Appalachian Trail. ATC also believes that its principal mission, which is to protect and promote the Appalachian Trail, can aid efforts to protect cultural resources. As a matter of policy, ATC is confident that the Trail can coexist with and provide protection for cultural-resource sites. Should conflicts arise, ATC will resolve matters through consultation with its management partners. If a situation arises where protection or use of the Trail has the potential to affect a cultural-resource site, the Appalachian Trail Conservancy will enter into formal consultation procedures with the involved agency partner(s), Trail-maintaining club(s), and the State Historic Preservation Office prior to

> undertaking any action that could adversely affect a significant or potentially significant cultural resource.
>
> The Appalachian Trail Conservancy will further cooperate with Trail-maintaining clubs and agency partners in efforts to promote and interpret important cultural-resource sites, where appropriate, and efforts to prevent vandalism, damage, or destruction of identified sites and artifacts.

The structures review process [see Chapter 4 (J), Structures and Dams] also allows for consideration of historic values as part of determining what to do with acquired structures.

NPS Policy—The Antiquities Act of 1906, the National Historic Preservation Act of 1966, the Archaeological Resource Protection Act of 1979, and several other laws provide legal protection for cultural resources on federally owned lands. The key provision of this body of legislation is Section 106 of the National Historic Preservation Act, which states:

> The head of any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking in any state and the head of any federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking.

That applies to all properties listed or eligible for the National Register *and to properties that may be eligible*, including those properties that have not been discovered. As a result, federal agencies, including the National Park Service, must take into account the potential impact of their actions upon known and unknown cultural resources. Prior to any undertaking on federal lands that involves surface-disturbing activity, such as construction of a Trail relocation or shelter, a qualified archaeologist must determine if cultural resources are present and if they will be impacted. This is normally done as part of the overall evaluation of a proposal in an environmental assessment prepared by the federal agency.

The National Park Service has further internal policy direction. The National Park Service *Cultural Resource Management Guidelines* (NPS-28) require each park manager to take affirmative actions to locate, identify, evaluate, preserve, manage, and interpret cultural resources so that they may be passed on to future generations in unimpaired condition.

Considerations for Planning

Inventory—There are thousands of important cultural sites along the Appalachian Trail. Some are identified in the *A.T. Comprehensive Plan*, others may be listed in inventories conducted by Trail club volunteers, agency partners, and local historical societies. The NPS Appalachian Trail Park Office and the Appalachian Trail Conservancy coordinated two statewide cultural-resource inventories, in Pennsylvania (1999) and Connecticut (2002). Another helpful resource is the Cultural Resource Context for the Appalachian Trail, completed in 2004. The National Park Service has recently focused on conducting "cultural landscapes inventories." The first on the Appalachian Trail, in Shenandoah National Park, was completed in 2007, and the second, in western Massachusetts, was completed in draft form in 2008. The historic preservation officer for each state may be able to provide information on other known cultural

resources within the Appalachian Trail corridor.

Setting Trail Club Policy—A Trail club policy statement should identify the need for a cultural-resource survey by a qualified archaeologist prior to surface-disturbing activities. (A cultural-resource survey does not necessarily require on-the-ground review). The club should also consider whether or not it wants to identify and interpret sites to the public. Finally, the club should recognize that structures on federal lands must be investigated by a qualified cultural-resource specialist prior to any major restoration or demolition.

Action Plan—A Trail club needs to consider the need for archaeological surveys as part of its over-all work plan. Proposed shelter sites and relocations should be reviewed by a professional archaeologist prior to actual on-the-ground work. (This review, which is often referred to as "Section 106 compliance" because it is done to comply with the provisions of Section 106 of the National Historic Preservation Act, is usually done by federal agencies as part of the environmental-assessment process). The Trail club also should consider the potential impacts to identified cultural sites that would result from making them more accessible to the public. Actions that publicize the location of a cultural site, including guidebook notations and interpretive signs, should be coordinated closely with an agency partner.

CHAPTER 5 (J)

Wilderness

Designation of wilderness areas is based on federal law. On September 3, 1964, the United States Congress passed Public Law 88-577, commonly known as the Wilderness Act. The act defined wilderness as an area that:

> *In contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain,… an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.*

In the Wilderness Act, Congress directed the secretaries of interior and agriculture to study and evaluate all lands under their jurisdictions for their wilderness potential and to recommend areas suitable for wilderness designation to the president. The president, in turn, must advise Congress of his recommendations with respect to designation of wilderness areas, and his recommendations become effective only if endorsed by Congress. In recent years, Congress also has introduced wilderness bills on its own. Congress has designated 26 wilderness areas that encompass or are adjacent to the A.T. (Appendix O), usually with explicit language regarding administration of the A.T. Today, more than 100 miles of the Trail pass through or are immediately proximate to designated wilderness, mostly in national forests. Several other areas, including a large portion of Great Smoky Mountains National Park, have been recommended for formal wilderness designation and are currently being managed as wilderness.

Within a wilderness area or area being managed as wilderness, the following activities are prohibited by law, unless provided for by special exception: roads, commercial enterprises, motor vehicles, motorized equipment, motorboats, landing of aircraft, and any other form of mechanical transport, structures, and installations. Special exceptions may be provided for the following activities:

- Existing private rights;
- Measures required in emergencies involving the health and safety of persons within the area;
- Activities and structures that are the minimum necessary for the administration of the area as wilderness;
- Use of aircraft and motorboats, where already established;
- Measures necessary in the control of fire, insects, and diseases;
- Any activity, including prospecting, for the purpose of gathering information about mineral or other resources, if carried on in a manner compatible with the preservation of the wilderness environment;
- Continued application of the U.S. mining and mineral leasing laws until December 31, 1983. As of January 1, 1984, the minerals in lands designated as wilderness areas are withdrawn from appropriation and are subject only to existing rights.

- Water-resource development authorized by the President where he determines that such use will better serve the interests of the United States and the people thereof than will its denial;
- Livestock grazing, where already established;
- Commercial services necessary for activities that are proper for realizing the recreational or other wilderness purposes of the areas;
- Adequate access to surrounded state and privately owned lands (or such lands shall be exchanged for federally owned lands);
- Access to surrounded valid mining claims and other valid occupancies.

The Appalachian Trail, because of the shelters and other improvements associated with the Trail, has been excluded from officially designated wilderness areas in only one instance. In the Great Gulf Wilderness in the White Mountains of New Hampshire, the A.T. footpath enters the wilderness, but the shelters have been excluded from the designation. In all other cases, the Appalachian Trail and designated wilderness coexist. Though the terms of this arrangement are not always articulated in detail, the legislative history of the specific acts of Congress that designate many of these areas as wilderness contain specific references to the fundamental compatibility of the A.T. and wilderness. Even in cases where this language is not present in the legislative history, it is clear that the A.T.'s basic purpose and character are primitive in nature and generally consistent with the management of areas as wilderness.

Existing Policy

ATC Policy—The Appalachian Trail Conservancy has generally supported initiatives to designate wilderness areas next to or encompassing sections of the Appalachian Trail. Often, ATC has recommended and Congress has incorporated specific language in several designating wilderness acts (or in the legislative history of these acts) to ensure that traditional Trail maintenance and management practices will be allowed to continue.

ATC has maintained consistently that no basic incompatibility exists between the Appalachian Trail and federally designated wilderness. Where the A.T. passes through or along the boundaries of designated wilderness areas, ATC and the maintaining clubs maintain the A.T. in accordance with the Wilderness Act, and individual area wilderness-management plans. Mechanized or motorized tools will not be used for maintenance, except as expressly allowed by the land-managing agency. ATC also has encouraged federal agencies to deal with specific shelter and Trail-marking issues on a case-by-case basis in wilderness-area management plans.

In April 1991, the ATC Board of Managers adopted the following policy:

> It is the policy of the Appalachian Trail Conservancy to support wilderness-area designation, wherever such designation enhances the protection and management of the Appalachian Trail and its side and connecting trails. This support is based upon the belief that the Appalachian Trail and its related facilities are fundamentally compatible with designated wilderness and that the preservation of wilderness in the vicinity of the Appalachian Trail can significantly enhance the experience of Trail users.
>
> ATC believes that the Trail and its related facilities represent a desirable existing use that is compatible with wilderness designation. ATC further believes that traditional management practices should continue, including Trail marking and maintenance, but that Trail maintainers should acknowledge and must comply with agency constraints on types of tools, equipment, materials, and methods. Maintenance of shelters and footbridges should be permitted and is

desirable for the protection of wilderness values and the health and safety of persons using the Appalachian Trail within designated wilderness.

Where the A.T. passes through designated wilderness, ATC and the Trail-maintaining clubs should maintain the A.T. in accordance with the Wilderness Act, specific wilderness-area designating acts, and individual wilderness-area management plans. Decisions by agency partners regarding wilderness management that could potentially affect the Appalachian Trail should be developed in consultation and coordination with the Appalachian Trail Conservancy, affected Trail-maintaining clubs, and other organizations and individuals. ATC encourages federal agencies and Trail-maintaining clubs to deal with specific shelter and Trail-marking issues on a case-by-case basis in wilderness-area management plans and club local management plans.

ATC endorses the following principles for management of the Appalachian Trail within designated wilderness and for areas encompassing the Trail that are to be designated as wilderness:

Trail Marking. The Appalachian Trail should be marked in designated wilderness by 2-inch by 6-inch white vertical paint blazes, as described in the ATC stewardship handbook, *[Appalachian] Trail Design, Construction, and Maintenance*.

Signs should be used only where necessary to provide basic information essential for navigation and public safety. Signs along the Trail within wilderness should be used to identify direction and distance to shelters and water sources, precautions for use of water, and only such other information as is necessary to protect wilderness values. In general, if a regulatory or educational sign is needed to inform users, it should be placed outside the wilderness area boundary at the Trailhead or point of entry into the wilderness area. Signs should be simple and as small as possible, be made of natural wood, and be designed to minimize their contrast with the natural environment.

Trail Shelters, Overnight Use Facilities, and Structures. The system of Trail shelters spaced at approximate one-day hiking intervals is an integral component of the Appalachian Trail environment. In general, Trail shelters in designated wilderness areas should be rustic Adirondack-style lean-tos constructed of lumber, logs, or rocks, with a normal use capacity of six to 10 people. Existing shelters within designated wilderness should be maintained, repaired, and restored as necessary. Materials used during repair or restoration should reflect a sensitivity towards wilderness values. Relocation of existing shelters should be considered only when adverse impacts to wilderness values can be reduced *and* where Appalachian Trail values are enhanced by such action. The historic integrity and value of the shelter, if any, should be maintained during any repair, restoration, or relocation.

Privies should be considered as an option if necessary to address sanitation concerns, but only when necessary to prevent resource damage and provide a minimum standard of public safety. Privies cannot be constructed without express authorization from the appropriate official of the land-managing agency.

Use of Motorized Equipment. In all circumstances, use of power tools in wilderness areas must be specifically authorized in advance by the appropriate official of the land-managing agency. Certain wilderness-area designating acts may provide specific exemptions for use of power tools

during certain time periods. The authorized official of the land-managing agency may also approve use of power tools under certain conditions, such as in emergencies involving the health and safety of persons within the wilderness area. Emergencies may include search-and-rescue operations, wildfire suppression where human life may be at risk, clearing of severe blowdowns from the Trail treadway (where use of two-man saws may create an unacceptable safety hazard to the operators), aircraft accident investigations, and other emergencies as determined by the appropriate official of the land-managing agency.

Tread Improvements. Water bars, bog bridging, and other treadway structures along the Trail should be constructed and reconstructed to ensure adequate tread stabilization, erosion control, and prevention of resource damage. In isolated areas, bridges may be necessary to provide a minimum level of safety for Trail users crossing hazardous streams and rivers along the Trail and should be constructed or reconstructed when necessary to provide an adequate level of user safety and to protect the wilderness resource. The design of any reconstructed bridge or erosion-control structure along the treadway should emphasize rustic materials and workmanship with sensitivity to wilderness values.

NPS Policy—Most of the lands within the boundaries of the Great Smoky Mountains National Park, including the land traversed by the Appalachian Trail, are managed by the National Park Service as wilderness, even though no formal designation has been approved by Congress. The preservation of wilderness character for these lands is the primary management objective, and activities that are inconsistent with that objective are prohibited. Administrative use of motorized equipment is authorized only if determined by the superintendent to be the minimum tool needed by management to achieve the purposes of the area; or in emergency situations involving human health or safety or the protection of wilderness values. The Trail skirts the edges of several wilderness areas in Shenandoah National Park, and, in several cases, the footpath enters the wilderness areas for short distances. Those areas are managed in accordance with the Wilderness Act. Chapter 6 of the 2006 NPS *Management Policies* provides extensive guidance on management of wilderness areas within NPS-administered units.

Considerations for Planning

Inventory—The Trail club should identify those sections of the Appalachian Trail that lie within or adjacent to designated wilderness areas, potential wilderness areas, and areas that have been recommended or are being studied for wilderness designation. If there are no such areas within a club's section, the Trail club should simply note in the local management plan: "No wilderness areas or areas being considered for wilderness."

Setting Trail Club Policy—This is only necessary for Trail clubs that maintain and manage sections of the Trail in or near wilderness areas or potential wilderness areas. For those Trail clubs that need to develop a wilderness policy, the policy should identify what restrictions and activities will be endorsed by the club within wilderness areas (particularly those restrictions and activities that differ from those on lands outside wilderness areas). Any active management proposal (treadway relocation, bridge construction, *etc.*) should be closely coordinated with the Trail club's agency partner.

Action Plan—No Trail club action plan is necessary, but club members are encouraged to participate in the agency planning process for individual wilderness-management plans.

CHAPTER 5 (K)

Special and Unique Areas

A number of sites along the Appalachian Trail are special or unique because of their biotic, geologic, cultural, and/or scenic values. These sites, even if they do not qualify for specific protection under the Endangered Species Act, the National Historic Preservation Act, or the Wilderness Act, still deserve special recognition and management. Land-managing agencies often give these areas special designations, such as the Gulf Hagas Preserve in Maine, and manage them with a higher level of protection from use and development.

These areas may require special emphasis to protect the natural resources from over-use by hikers as well as from abuse by others. A designation of a special or unique area can afford a higher level of protection for an area and allows a Trail club to alert its management partners to the presence of resources and features along the Trail that are important to the Trail community.

Areas that might be identified as special or unique areas include:

- Stands of old-growth timber or virgin timber, such as the old-growth white pine stand in The Hermitage in Maine.
- Areas above timberline or alpine tundra sites, such as Mt. Washington in the White Mountains of New Hampshire.
- Sites of historic events, such as Fox Gap and Turner Gap in Maryland.
- Unusual geologic formations and landforms, such as McAfee Knob on Catawba Mountain in Virginia.
- Areas where unusual flora or fauna exist, such as the azalea gardens on Wayah Bald in North Carolina.
- Scenic areas, such as Laurel Fork Gorge in Tennessee, Sterling Forest in New York, or Mt. Pleasant in Virginia.

The preservation of these features is essential to the quality of the Trail experience, and steps should be taken to ensure that the resource values are protected. Many methods exist to protect these resources, including signage, ridgerunner programs, and, as a last resort, law-enforcement action. Some resources may be unable to withstand intensive use, and it may be necessary to relocate the Trail away from a special or unique area.

Existing Policy

ATC Policy—ATC has no official policy concerning the identification and management of special or unique areas, other than to encourage individual Trail clubs to recognize the importance of such areas and include them in the local management plans.

NPS Policy—The National Park Service recognizes four management zones on its lands: natural, historic, park development, and special-use zones. Of these, the natural and historic zones are most applicable to the Appalachian Trail and are identified in the individual resource-management plans for each of the existing national park units.

NPS recognizes that special designations apply to parts or all of some parks to highlight the additional management considerations that those designated areas warrant. These designations include: research natural area, experimental research area, wilderness area, national wild and scenic river, national natural landmark, biosphere reserve, and world heritage listing. These designations do not reduce the Service's

authority for managing the parks, although in some cases they may create additional management requirements or considerations. The NPS Appalachian Trail Park Office will consider proposals for special designations of areas on a case-by-case basis.

Many national parks identify management zones to describe desired resource and visitor experience conditions. No specific zones have been identified for lands acquired by the Appalachian Trail Park Office, which relies on the local management plans of each Trail club to define management objectives for each section of the Trail. Virtually all of these lands, however, would be classified as natural "backcountry" under the National Park Service planning system. ATPO will consider proposals for special designations of areas on a case-by-case basis. The National Park Service uses the term backcountry to refer to primitive, undeveloped portions of parks. This refers not to a specific management zone, but rather a general condition of land that may occur anywhere within a park. Backcountry use should be managed in accordance with a backcountry management plan (or other plan addressing backcountry uses) designed to avoid unacceptable impacts on park resources or adverse effects on the visitor enjoyment of appropriate recreational experiences.

Considerations for Planning

Inventory—Many special and unique areas are identified in Appendix C of the NPS *A.T. Comprehensive Plan*. A Trail club can begin with that inventory list and add or delete areas, as appropriate, to develop a current list. The Trail-assessment process provides another opportunity.

Setting Trail Club Policy—Trail club policy should document the club's intent to give these areas a higher level of protection. The club also needs to identify any special management principles, such as locating the Trail footpath closer to or away from a special or unique area, that will apply in identified special and unique areas. Any programs developed by agency partners should also be recognized.

Action Plan—Designation is the first step for long-term management. Some areas may require little or no action; others must be policed for litter and vandalism, monitored for evidence of over-use, or noted and publicized in guidebooks and other publications to enhance the Trail experience. Those actions would normally be part of a long-range plan.

CHAPTER 5 (L)

Agricultural Use

Agricultural uses provide an important component of the Trail environment. The *A.T. Comprehensive Plan* states: "Open areas and vistas are a particularly pleasing element of the A.T. Management activities that preserve these characteristics are encouraged, so long as they reflect sensitivity to other Trail values."

However, not all agricultural activities are compatible with the Trail environment—for example, feedlots, broad-spectrum applications of herbicides, hydroponics, and other high-intensity agricultural practices. And, even low-intensity agricultural uses can have an adverse effect on the Trail environment or Trail visitors.

In the late 1980s, the National Park Service began purchasing lands to protect the Appalachian Trail across the Cumberland Valley. During a highly contentious and controversial public review process, representatives from local Trail clubs, ATC, and the National Park Service gave assurances to local communities and farmers that the Appalachian Trail and agricultural use were fundamentally compatible activities, and that the Trail community would do everything possible to protect the farmland scene and be responsive to the concerns of the agricultural community.

In 1992, the Cumberland Valley Appalachian Trail Management Association (now the Cumberland Valley Appalachian Trail Club) accepted the assignment of the Appalachian Trail section through the Cumberland Valley and began working closely with the farming community, ATC regional staff, and the National Park Service to develop and implement a strategy for managing agricultural uses within the Trail corridor. Farm conservation plans were developed; recommendations for soil testing, liming, fertilizing, and contour-stripping were carried out; Integrated Pest Management procedures were implemented; and ATC and the National Park Service amended their cooperative agreement to fund agricultural erosion-control measures and ATC's monitoring of pest-control and other farm-management activities.

Many of the lessons learned in the Cumberland Valley are potentially applicable in other locations along the Trail where agricultural use is present within the Trail corridor.

Existing Policy

ATC Policy—In April 1996, the ATC Board of Managers adopted the following policy statement to guide ATC programs with respect to agricultural use on Appalachian Trail corridor lands:

> Recognizing the great diversity in agricultural practices and pastoral environments along the Trail corridor, it is the policy of the Appalachian Trail Conservancy to support and promote agriculture within the Trail corridor in locations where such use has been long-established and provides a desirable and appropriate setting for the Trail. Agriculture can serve as an excellent management tool for maintenance of open areas. When properly conducted, it can provide visual diversity, a pleasing recreational environment that complements and is compatible with the surrounding community, a beneficial resource use, and good community relations with a minimal burden on volunteer time and energy.
>
> Feedlots, hydroponics, pisciculture, greenhouses, and other high-intensity farming practices are normally considered incompatible with the Trail experience and will be discouraged. However, under most circumstances, pastures, hayfields, and croplands can provide a pastoral

scene and a desirable measure of diversity in the Trail landscape while maintaining consistency with the purposes for which the Trail is managed. ATC will work with local Trail clubs and agency partners to preserve agricultural uses within the Trail corridor, where such uses enhance the Trail experience.

Croplands: Agricultural fields should be designed so that they can be farmed profitably using agricultural best-management practices, provided that such practices do not detract from the Trail experience or other Trail values. Pest-control measures should comply with integrated pest-management recommendations for the use of pesticides and herbicides as set forth by the land-managing agency (or its designee).

Pasture lands: Pastures should be managed so that overgrazing, erosion, or other resource damage does not occur. In the event of resource damage, permit conditions should be amended or permits suspended until a desirable forage cover is reestablished. Bulls and other potentially aggressive livestock should not be permitted in pastures crossed by the footpath of the Trail. Riparian areas should be protected.

The Trail footpath should be located in its optimal location through croplands, pasturelands, and hay meadows, but, as long as the recreational experience and resource values for which the Trail is managed can be maintained, some adjustments may be considered if needed to maintain a viable agricultural operation. Solutions to on-the-ground issues should be worked out among all interested parties, including the local Trail club, ATC, the land-managing agency, the Natural Resources Conservation Service, and the permittee or prospective permittee(s). Farm-management plans, soil-conservation plans, crop rotations, agricultural conversions, livestock densities, and duration of grazing should follow Natural Resources Conservation Service or managing-agency recommendations.

ATC supports terms of five years or more for permits for agricultural activities, in order to encourage long-term relationships and allow permittees a reasonable rate of return on any investments in Trail-corridor lands. Permits should not be considered as rights: They may be revoked for noncompliance, and they should be reviewed every five years to ensure that the agricultural operations provide a net benefit to the Appalachian Trail. While permit fees should be based on fair market value, ATC encourages adjustments in permit fees to provide funds for assessment, monitoring, and site improvements and to recognize benefits that may accrue to the Trail from cropland or pastureland management.

NPS Policy—Agricultural uses and activities are authorized in national parks in accordance with the direction provided by a park's enabling legislation and general management plan. Agricultural activities, including demonstration farms, prescribed to meet a park's management objectives will be allowed if: (1) they do not result in unacceptable impacts on park resources, values, or purposes; (2) they conform to activities that occurred during the historic period; and (3) they support the park's interpretive themes. Agricultural uses that do not conform to those in practice during the historic period may be allowed if: (1) they are authorized by the park's enabling legislation; (2) they are retained as a right subsequent to NPS land acquisition; (3) they contribute to the maintenance of a cultural landscape; or (4) they are carried out as part of a living exhibit or interpretive demonstration.

The National Park Service may issue leases or special-use permits [see Chapter 4 (I)] to individuals or organizations to conduct agricultural activities that are allowed on park lands under the criteria listed in the preceding paragraph. Agricultural livestock grazing will use best management practices to protect

park resources, with particular attention being given to protecting wetland and riparian areas, sensitive species and their habitats, water quality, and cultural resources.

Considerations for Planning

Inventory—The Trail club should maintain an inventory of special-use permits issued for agricultural use on its section of the Appalachian Trail (this information can be provided by ATC). The inventory should identify: (1) the type of agricultural activity; (2) the permittee; and (3) the starting date and termination date. A file should be kept that includes a copy of the agricultural permits and any monitoring responsibilities undertaken by the club [see Chapter 4 (I)].

Setting Trail Club Policy—Trail club policy should recognize the general circumstances under which an agricultural SUP may be issued by the National Park Service on NPS-acquired lands and add any criteria that the club wishes to use in evaluating proposals for allowing specific uses by permit.

Action Plan—As with any SUP, the maintaining clubs have two primary responsibilities with regard to NPS-acquired lands: recommending where permits may be appropriate and what permit conditions should be applied; and monitoring permittee use for compliance with the conditions of the permit.

In recommending approvals or continuation of special-use permits, Trail clubs need to ask:

1. What is the agricultural purpose of issuing the permit (grazing, farming, haying, maple sugaring, *etc.*)?
2. Is there a demonstrated benefit to the A.T. (*e.g.*, continuation of a pastoral scene)?
3. Is the use temporary in nature?
4. Is there more than one potential permittee or interested party?
5. How many acres of Trail lands are involved?
6. What conditions should be required of the permittee (prevent overgrazing, erosion control, riparian area protection, pesticide management) in order to control the use?
7. How will the club monitor the permittee?
8. For what period of time should the permit be issued?
9. How does the proposed activity relate to visitors' experience? Will the proposed use enhance that experience, or detract from it, or have no effect?
10. What would be the difficulties associated with terminating a permit for this use once it was issued?
11. What guidance for this type of use is provided in management-planning and policy documents?
12. Can the proposed use be accommodated outside of the Trail corridor?
13. Would the proposed activity result in the exclusive benefit or enjoyment of the area by a few persons?
14. Would the issuance of this permit set an unacceptable precedent?
15. Is the permit being proposed solely because it is a preexisting use?

Any active role undertaken by the club should be noted as a club action in its long-range plan.

CHAPTER 5 (M)

National Environmental Policy Act Compliance

The National Environmental Policy Act (NEPA) of 1969 directs federal agencies to consider the potential impacts of a proposed action or policy upon the environment before implementing the action or policy. "NEPA compliance" is the term used to describe the process of evaluating and documenting the potential impacts of an action upon the environment. Each federal agency must follow this process for any proposed agency action (or action on agency lands) with the potential to affect the environment.

Procedural compliance with NEPA is a responsibility that cannot be delegated to ATC or the Trail clubs. As a result, when ATC or a Trail club proposes an activity that has the potential to affect the environment, the federal agency must conduct an environmental assessment (EA) in order to meet its obligations under NEPA. Normal Trail maintenance and most other maintenance activities undertaken by ATC and the Trail clubs do not have the potential for significant environmental impact and do not require preparation of an environmental assessment. For undertakings like a major relocation of the footpath or construction of a new shelter, however, NEPA compliance must be done before construction starts.

Federal agencies also are required to prepare environmental assessments or environmental-impact statements (EIS) for other proposed activities on federal lands, including proposals for pipeline rights-of-way, road-construction projects, and timber sales. NEPA provides an opportunity for Trail clubs, as well as the general public, to identify and respond to potential impacts of such projects on the Appalachian Trail and other resources.

Existing Policy

ATC Policy—ATC has no formal policy regarding compliance with the National Environmental Policy Act; however, in practice, ATC supports federal and state agency compliance with NEPA. ATC frequently participates in review and comment upon environmental assessments and environmental-impact statements for projects that might affect the Trail, and encourages Trail clubs to do the same.

NPS Policy— Many actions taken by the National Park Service and its partners require compliance with the National Environmental Policy Act (which in turn requires compliance with the National Historic Preservation Act and other natural- and cultural-resource protection laws).

The NPS Appalachian Trail Park Office requires preparation of an environmental assessment for the following activities on NPS-acquired lands:

- Construction of a new shelter;
- Construction of a major bridge (more than 35 feet long or requiring significant excavation);
- Construction of a parking lot with the capacity for more than 10 vehicles;
- All relocations of the footpath;
- "Open-areas" projects;
- Any other action that includes a significant amount of soils disturbance or removal of vegetation.

The NEPA compliance process includes consultation with interested parties, the general public, and individuals who are recognized experts in environmental and natural-resource fields. The NPS Appalachian Trail Park Office prepares an environmental assessment that describes the proposed action, any alternatives that are being considered, and the known environmental consequences of each course of

action. The assessment is distributed to individuals and organizations with an interest or expertise in the area. Interested parties are normally given 30 days to comment upon the assessment. Upon receipt and evaluation of their comments, the Appalachian Trail park manager issues a "finding of no significant impact" (FONSI) if there are none, or issues a statement that a formal environmental-impact statement is necessary because there *is* the potential for significant environmental impact. If a FONSI is issued, work on a project can begin. Certain conditions, or "mitigating measures," may be identified in the process to reduce identified impacts to the environment, and these measures need to be included in the project.

Other NPS park units, such as Shenandoah National Park and Harpers Ferry National Historical Park, have similar criteria for determining when an environmental assessment is required. The park superintendent should be consulted prior to initiating any new surface-disturbing activity.

Considerations for Planning

Inventory—No inventory is necessary.

Setting Trail Club Policy—Club policy should recognize the legal obligations that federal agencies have for compliance with NEPA. The policy should recognize those activities that have the potential for significant impacts to the environment and when an agency partner normally is required to prepare an environmental assessment. The Trail club also may wish to identify the types of activities that might occur on adjacent federal lands, such as timber harvests, road-construction projects, and utility-line projects, that the club would like to comment on during the agency's NEPA review process.

Action Plan—Any proposed Trail club activity that will require preparation of an environmental assessment should be noted as such in a club's annual work plan, and lead time should be allocated for the agency to conduct an environmental assessment.

CHAPTER 5 (N)

Exotic Species

Invasive exotic species have been taking hold in the Appalachians for decades, even centuries before the A.T. was built, but they have only recently been recognized as a threat to the Trail experience. Probably the most widespread identification of invasive exotic species along the Appalachian Trail began in 1989, with the undertaking of the Appalachian Trail natural-heritage inventories. Those state-by-state reports identified invasive exotic plant and animal species because they frequently represented a threat to populations of rare and indigenous plants and animals found along the Trail. The most extensive identification of exotic species along the A.T. occurred in the Virginia survey, where exotic species were documented as a threat to 51 of the 74 identified sites.

Much remains to be learned about the presence and extent of invasive exotic species along the A.T. However, it is becoming increasingly evident within the scientific community that invasive exotic species represent one of the most significant threats to biodiversity worldwide, second only to habitat loss. This threat is recognized by the federal government, which has formed an interagency task force to address the problem. The Trail environment is no exception. From Georgia to Maine, invasive exotic species are threatening to displace native species—and, in some cases, rare species—from their habitats.

Eradication of most invasive exotic species is next to impossible. Most are firmly established as part of the ecosystem, some are favorites of many people, and even draconian solutions would not eliminate them. Even control is difficult in many cases, especially in an area as lengthy and exposed as the Appalachian Trail. In the face of such a challenge, establishing criteria for when and where to devote funds as well as volunteer and staff time for control of invasive exotic species is an adaptive strategy that ensures the most return for the resources spent. In addition, partnerships with other groups interested in protecting native species and limiting the impact of invasive exotic species on the environment can often increase the capacity and efficiency of control efforts.

Existing Policy

ATC Policy—In 2002, the ATC Board of Managers adopted the following policy on exotic species:

> The Appalachian Trail Conservancy and its member clubs recognize the potentially adverse impacts of invasive exotic plant and animal species upon the ecosystems through which the Trail passes. Proliferation of these species may significantly alter the natural communities along the Trail and threaten biodiversity.
>
> Exotic species are defined as species, either plant or animal, that occur in a given place outside of their native ranges as a result of human actions. Exotic species that pose a threat to the native species of the area they occupy are considered invasive.
>
> The Conservancy will work to manage invasive exotics in cooperation with its agency partners, Trail maintaining clubs, and other interested groups. This effort will include the following elements:
>
> - Education—ATC will incorporate information on invasive exotic species and the threats they present into its public-information efforts. As part of this effort, the Conservancy will seek to raise the collective awareness of its members, volunteers,

and staff regarding the potential harm caused by invasive exotic species, their rate of expansion, and methods that can be employed to control them effectively.

- Monitoring—The occurrence and spread of invasive exotic species will be monitored as resources permit. Priority will be given to those areas where threatened and endangered species are at risk and in natural communities that are most vulnerable to invasion.

- Control—To the extent feasible, invasive exotic species will be controlled with priority given to those areas (1) where invasive exotic species have the potential to do the greatest harm; and (2) where actions to control invasive exotic species will do the greatest good and have the highest likelihood of success. Control methods will utilize the best scientific management practices available and will not be implemented until approvals have been obtained from appropriate land management and regulatory agencies. Control methods that have adverse impacts on nontarget species will only be used where there is a clear, long-term benefit to the natural community or its component species.

NPS Policy—The National Park Service recognizes the introduction of exotic species as a form of human disturbance, one that sometimes has far ranging and very destructive impacts on natural systems. As it seeks to reestablish natural systems and processes on park lands whenever possible, the NPS has resolved to control the spread of exotic species using the best technologies within available resources, and help reestablish native plant and animal populations in disturbed landscapes. Among other cases, the NPS has determined that management action is necessary when, as a result of human influences, a population occurs in an unnaturally high or low concentration (a typical effect of invasive exotic species) and when it is necessary to protect threatened or endangered species.

For more information, see 2006 NPS *Management Policies*,, section 4.4.4. All exotic plant and animal species that are not maintained to meet an identified park purpose will be managed—up to and including eradication—if control is prudent and feasible, and the exotic species:

- interferes with natural processes and the perpetuation of natural features, native species or natural habitats;
- disrupts the genetic integrity of native species;
- disrupts the accurate presentation of a cultural landscape;
- damages cultural resources;
- significantly hampers the management of park or adjacent lands;
- poses a public health hazard as advised by the U.S. Public Health Service (which includes the Centers for Disease Control and the NPS public health program); or
- creates a hazard to public safety.

Considerations for Planning

Inventory—Ideally, an inventory of exotic species present along the Trail and in the Trail corridor should be kept current. The Trail club is encouraged to record as much information as is feasible, such as the location and approximate size of exotic species populations, on a regular basis, especially before and after exotic species control activities. Any control activities should also be documented and recorded so as to evaluate the effectiveness of the methods used.

Setting Trail Club Policy—The Trail club is encouraged to include objectives and strategies for education, monitoring and control of exotic species in its statement.

Action Plan—The Trail club may wish to coordinate with ATC and agency partners to train volunteers in exotic plant species recognition and monitoring, as well as with any organization that may already be conducting monitoring efforts. The Trail club is encouraged to set standards for monitoring as well as control methods, and to record activities as described above in the inventory section.

CHAPTER 5 (D)

Timber Management

Prior to the Trail-protection effort, the lands adjacent to the footpath were managed primarily for timber products such as saw timber, pulpwood, and firewood. In many areas adjacent to the Trail corridor, timber management remains the predominant use of adjoining private and public land.

A well-planned timber harvest near the Appalachian Trail can have little or no discernible impact upon the Trail. If poorly planned or carried out, however, a timber harvest can have dramatic, long-term effects on water, soils, and visual-resource values. The removal of vegetation and the soil disturbance associated with careless construction of roads and skid trails can cause a substantial increase in water run-off and erosion. The removal of part or all of the vegetative overstory in an area that can be seen from the Trail also can have a significant effect on the scenic environment of the Trail. Timber access roads can create visual scars or allow access to the Trail for all-terrain vehicles, horses, and other incompatible activities.

Most of the Trail is located on National Park Service or national forest lands that are managed specifically to protect and provide a premier backcountry recreational experience. The National Park Service does not allow consumptive utilization of park resources, including timber resources, on any lands within the National Park system. The U.S. Forest Service classifies lands within the A.T. management or prescription area as unsuitable for commercial timber production. The intent of both agencies is that the lands in the Trail corridor are to be managed for their recreational values, not their timber values.

Existing Policy

ATC Policy—Appalachian Trail Conservancy guidance is consistent with and supportive of federal agency policies regarding timber management near the A.T. ATC policy guidelines for national forest lands recognize that timber harvest is a legitimate use of adjacent national forest lands, provided Trail values are taken into account during the planning process. ATC encourages Trail clubs and local ATC representatives to work with land-managing agencies to review, comment on, and modify area-specific plans for management of individual timber stands adjacent to or visible from the Trail.

In June 1989, the ATC Board of Managers adopted the following policy statement regarding timber management on national forest lands:

> The Appalachian Trail Conservancy endorses the use of the U.S. Forest Service Visual Resource Management *[now Scenery Management]* System and the consultation procedures described in the *Forest Service Manual Supplement for the A.T.* (FSM 2353) and used by the U.S. Forest Service, ATC, and the Trail-maintaining clubs for assessing the impacts of timber management activities upon the Appalachian Trail. ATC will participate and encourage participation by Trail-maintaining clubs in review of forest plans and proposals for management actions on national forest lands.
>
> The Appalachian Trail Conservancy recognizes that timber harvesting is a legitimate use of national forest lands. However, it is the position of the Appalachian Trail Conservancy that timber harvesting has the potential to cause adverse impacts to the scenic, aesthetic, recreational and natural resource values of the Trail, and that timber harvesting should only take place in a manner that does not detract from Trail values.