

COUNCIL CONSERVATION COMMITTEE

GUIDEBOOK



BOY SCOUTS OF AMERICA®

**COUNCIL CONSERVATION
COMMITTEE GUIDEBOOK**

A WORD FROM THE CHIEF SCOUT EXECUTIVE

Conservation is woven throughout the fabric of Scouting and has been in our DNA since the BSA's founding in 1910. Our early leaders, James E. West, Ernest Thompson Seton, and Dan Beard, along with President Theodore Roosevelt, recognized the inherent value of conservation activities and made these core to the Scouting experience.

Contemporary conservation policies and practices have been developed and reinforced throughout the years, including a requirement that each council forms a conservation committee to assure that camps are managed in accordance with sound resource management principles. In addition, advancement activities and awards have been created to encourage Cub Scouts, Boy Scouts, and Venturers to be grounded in the principles of conservation, helping them become well-rounded individuals and citizens.

This guide, written by the National Conservation Committee, was developed to inform, guide, and inspire local council volunteers and staff for establishing and strengthening conservation activities. Use it to review and evaluate conservation efforts in delivering an exceptional Scouting program to the youth of the communities you serve.



Robert J. Mazzuca
Chief Scout Executive

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INTRODUCTION

PURPOSE

The purpose of this online guide is to identify parameters for a local council to organize or strengthen its conservation committee. The mission, organization, membership, operations, and functions of the conservation committee will be dependent upon the needs and desires of the local council—the guide identifies several alternatives in this regard. In addition, the guide serves to identify the areas of responsibility that may be assigned to the committee along with suggestions of resources that may be tapped by the committee regarding those areas of responsibility.

Also included in the guide is a sample of a local council conservation plan, as well as a discussion of potential sources of revenue for the council to fund conservation programs and activities.

CONSERVATION AND SCOUTING

*“C*onservation means development as much as it does protection. I recognize the right and duty of this generation to develop and use the natural resources of our land, but I do not recognize the right to waste them, or to rob, by wasteful use, the generations that come after us. . . . Moreover, I believe that the natural resources must be used for the benefit of all our people, and not monopolized for the benefit of the few. . . . Of all the questions which can come before this nation, short of the actual preservation of its existence in a great war, there is none which compares in importance with the great central task of leaving this land even a better land for our descendants than it is for us, and training them into a better race to inhabit the land and pass it on. Conservation is a great moral issue, for it involves the patriotic duty of insuring the safety and continuance of the nation.”

—THEODORE ROOSEVELT, SPEECH AT OSAWATOMIE, KANSAS, AUGUST 31, 1910

It has been said that “the meaning of words lies in the mind, not in the dictionary.” That is to say that whenever people hear a word, they will intellectually and emotionally react to a mental image of what that word means based on their individual understanding and experiences. This is one of the reasons communication between people can be so difficult, because the same word may create very different images in two individuals depending on what they’ve experienced in life, where and how they grew up, and even how long they’ve lived.

So, what does this have to do with conservation? Unless your council has a well-established conservation committee already in place, you could encounter some indifference and maybe even outright opposition to efforts to reintroduce an active conservation program—or to reenergize existing programs—to Scouts and Scouters in your area. Often, when you make an effort to communicate deeper with those folks, you may find that people resistant to this idea might have their images of a conservationist as either someone who insists all natural resources must be preserved in their existing state or someone who wants to harvest all the forests and shoot Bambi in between logging jobs.

One possible method to help you deal with those situations is to offer Scouts and Scouters in your council an image of how the Boy Scouts of America has viewed and acted on the term “conservation” throughout the years. By offering a synopsis of what has happened in the past, you may be better able to communicate a clearer vision of what your conservation committee is attempting to achieve now and in the future.

Conservation has been an integral part of the program of the Boy Scouts of America since its establishment. Men such as BSA founder William D. Boyce, National Scout Commissioner Daniel Carter Beard, Chief Scout Ernest Thompson Seton, and U.S. President and Chief Scout Citizen Theodore Roosevelt were all active supporters of wildlife conservation and avid hunters. The extinction of the passenger pigeon, the

near extinction of the American bison, and the expiration of a number of game animals from their natural range drove home to these men that without proper management, our natural resources were not inexhaustible. Gifford Pinchot, the chief Scout woodsman, was the first chief of the USDA Forest Service and a strong advocate for the scientific management of forests. There was also a sense that the landscapes that made the American frontier were also disappearing and, with them, the opportunity for Scouts to practice outdoor life and outdoor craft to “counter the drift of modern city life,” as described in the 1925 *Handbook for Scoutmasters*.

Conservation was often viewed as linked to the sixth point of the Scout Law: A Scout is kind; “He is a friend to animals.” The requirements of the Conservation merit badge listed in the third edition of the *Boy Scout Handbook* summarized the ways in which Scouts actively practiced conservation: “Present evidence of having directly assisted conservation by some practical deed, such as fighting a forest fire, checking erosion; planting trees; helping restock streams with fish; posting or distributing conservation notices; planting wild rice or other duck feed; feeding birds in winter; stopping stream and river pollutions.”

By the time the fourth edition of the *Boy Scout Handbook* rolled out, memories of the Great Depression and the Dust Bowl provided additional images for Scouts and Scouters to associate with conservation. In the “Conservation for Scouts” section, Ted Pettit reminded Scouts, “In recent years, shortages of several natural resources—minerals, some kinds of timber, some kinds of birds and animal—and an increase in dust storms, floods, bog fires and forest fires, all have helped to make conservation part of America’s conversation.” “But,” he wrote, “how many Scouts really know what conservation means, what it implies, and what they can do about it?” Those Scouts and Scouters who read on learned that conservation is “the wise use of natural resources—minerals, soil, plants and animals—so that these resources will continue to serve the greatest number of people, to the fullest advantage.” In addition to the sixth point of the Scout Law, Scouts were told the ninth point of the Scout Law—“A Scout is thrifty”—is equally important in conservation.

Scouts were also encouraged to undertake projects to protect and improve the soil, water, trees and plant life, and wildlife, with the help of various conservation agencies. In addition, Scouts and Scouters were cautioned “that before any project is undertaken . . . all possible outcomes should be predicted, as far as possible, so that the project will produce the greatest good for the greatest number of people.” In particular, Scouts were urged to be careful not to inadvertently break strands in “the ‘Web of Life.’ ”

When the fifth edition of the *Boy Scout Handbook* reached the hands of Scouts and Scouters, World War II was over. In addition to the text on conservation in the fourth edition, Scouts would read how “America’s natural resources are a part of your heritage,” and they could take the Conservation Pledge.

Conservation Pledge

“I give my pledge as an American to save and faithfully to defend from waste the natural resources of my Country—its soil and minerals, its forests, water and wildlife.”

In more recent times, we've seen conservation programs continue this theme of wise use, but it expanded to reflect growing knowledge of how important our natural resources are to life itself. The Conservation Good Turn evolved into Save Our American Resources—SOAR; using a life preserver with symbols for “land, air, water, and vegetation—the elements that make life possible on Earth,” and arrows to “symbolize the interdependence of man with his environment.” Energy conservation became a recognized component of the conservation program, as well. The Conservation Pledge became the Outdoor Code.

Outdoor Code

“As an American, I will do my best to be clean in my outdoor manners, be careful with fire, be considerate in the outdoors, and be conservation-minded.”

Today, Scouts and Scouters continue to participate in a wide range of activities that reinforce the wise use of our nation's and the world's natural resources. The changes and additions to the conservation program in Scouting didn't replace or belittle the earlier concepts of conservation; they merely reflect our increased knowledge about our world and how it works to identify additional tools we can use to effectively address problems and help insure future Scouts will have the same or better opportunities to enjoy the natural environment without a loss in their quality of life.

Your council conservation committee (CCC) can play a vital role in helping Scouts, Scouters, and citizens in your area to better understand the conservation program within Scouting. By looking at where we've been, you can provide some context to show that we aren't limited to yesterday, but that we can fully embrace a broader image of what conservation looks like. This broader perspective could mean embracing a conservation plan in your council to incorporate a timber harvest in one area of the Scout camp as the wisest use of that resource, while also setting aside and preserving a tract of old-growth timber so the Scouts of today and tomorrow can better envision what the pioneers saw and appreciate the challenges they faced in getting started.



THE COUNCIL CONSERVATION COMMITTEE

MISSION STATEMENT

The council conservation committee provides the council with all available expertise regarding matters of ecology, conservation, and resource management so as to guide policy making and operational decisions regarding the management of the councils' natural and cultural resources, promotion of conservation-related training, and advancement of conservation programs.

ORGANIZATION OF THE COMMITTEE

The council conservation committee should include a broad representation of people committed to the development of sound resource management policies and the sustainability of council conservation resources. Most importantly, members of this committee must possess a strong interest in conservation. This would include individuals involved in Scouting and with knowledge of BSA conservation programs. The committee should

be enhanced by resource professionals from outside Scouting who are willing to share their expertise as advisers and/or consultants on conservation matters, programs, and state-of-the-art technology.

To better deal with the complex issues that present themselves to a conservation committee, the committee should strongly consider dividing into focus or tasks groups, such as the following:

- **Conservation Awards group:** Responsible for promoting and managing the council's conservation awards program.
- **Cultural Resources group:** Responsible for inventorying, recommending management and interpretation of cultural resources located on council properties. These include archeological, historic, and other man-made resources.
- **Forestry and Fire Management group:** Responsible for inventorying, recommending the management and supervision of the use of the forest resources present on council properties. Also responsible for developing a fire management plan for those properties.
- **Hazard Tree group:** Responsible for periodically identifying and recommending measures to mitigate or eliminate hazard trees and other potential natural hazards to human use on council properties.
- **Non-Timber Forest Products group:** Responsible for identifying potential non-timber forest products that are already present or are possible on council properties and to manage their development.
- **Outdoor Ethics/Leave No Trace group:** Responsible for promoting outdoor ethics and Leave No Trace within the council.
- **Real Estate group:** Responsible for recommending measures to maintain proper relationships with the landowners adjoining council property and for recommending real estate actions regarding council properties.
- **Soils and Geology group:** Responsible for monitoring and managing soil resources present on council properties and managing existing geologic resources.
- **Special Projects group:** Responsible for handling any special conservation-oriented projects or activities sponsored by the conservation committee or the council.
- **Summer Camp Program group:** Responsible for supporting the council's summer camp program, particularly its nature and environmental activities.
- **Trail and Campsite Management group:** Responsible for recommending the management of trails and campsites present on council properties.
- **Wildlife and Fisheries group:** Responsible for identifying and recommending management of the wildlife and fisheries resources present on council properties.



DUTIES AND RESPONSIBILITIES

CONSERVATION PLAN

Preparation and Administration of the Conservation Plan

The preparation and administration of a conservation plan for council camps and other properties is a core responsibility of the CCC. This plan, which is approved by the council executive board, identifies the policies under which council camps and other properties are to be managed.

The Camp Conservation Plan Guidelines for Council Conservation Committees

National standard No. 16 for Cub Scout and Boy Scout resident camps states, “There is an approved and current conservation plan for the camp (produced by the local BSA council conservation committee and/or camping committee). Refer to Conservation Planning for Scout Camp Properties, No. 21-300. From the plan, a list of conservation projects that can be done by a den, patrol, pack, or troop while in camp is posted. The camp conservation plan must have been updated within the past five years. Advancement opportunities in conservation for Boy Scout-age youth are desirable.” It is therefore the responsibility of the council conservation committee to develop and maintain a current conservation plan for the Scout camp property.

A conservation plan should be an evolving document that assesses and provides recommendations to meet the natural resource needs and the objectives of the Scout camp property. The conservation plan should be an accurate and current account of the natural resource management activities that are actually occurring on the property, and it should identify the scope of natural resource management practices that will, or will not, occur on the property in the future. The approved conservation plan should prescribe management practices that incorporate proper ethical stewardship and the sustainable management of the camp's natural resources based on the current scientific knowledge of forestry, fish and wildlife management, soil and water conservation, and recreational use management. Resource professionals, certified foresters, wildlife biologists, and other conservationists should be recruited to assist with the development of the camp conservation plan.

The camp conservation plan should include a title page, a statement of objectives, a property map with management units identified, a current description and inventory of plant and animal species by management unit, management recommendations, and a practice schedule to identify completion dates for recommended practices.

Consider incorporating the following elements into the conservation plan:

- Recommendations for sustainable, scientific, and ethical ecosystem management that promote ecosystem health while minimizing impacts from exotic and invasive species of plants and animals. All resource management and resource harvesting practices should be performed under the direction of qualified resource management professionals.
- An inventory of all known resources, including rare, threatened, and endangered species of plants and animals, and recommendations to protect these species and associated habitats.
- A recognition of historical, biological, archaeological, cultural, and geological sites of special interest, and recommendations for their use and protection.
- Guidelines for the camp that are enforced to maintain compliance with applicable forestry-related laws, regulations, and best management practices.
- Recommendations for minimizing disturbances within riparian areas, wetlands, and other ecologically sensitive areas.
- Recommendations to ensure that chemical pesticides are applied in accordance with EPA-approved labels and that they are applied only when necessary to meet objectives.
- Requirements for property boundary lines to be marked and maintained.
- Requirements for hunting and fishing programs on Scout camp properties to be performed in accordance with state and federal laws and regulations.
- The identification of policies under which the camp will be managed.
- Identification of the primary sources of ecosystem degradation (e.g., air pollution, water pollution, soil erosion, noise, exotic and feral organisms, pest organisms, aesthetic degradation, wildfire, resource extraction, human use, and community concerns) and recommendations of measures to eliminate or mitigate them.

- Possible inclusion of appendixes that focus on the specific management procedures to use when implementing the management policies for specific resources or needs.

Once an approved camp conservation plan is in place, a list of conservation projects to be performed by a den, patrol, pack, crew, or troop can be developed that are in compliance with the plan. The conservation committee should provide an updated conservation project list to the camp ranger, camp director, and the ecology director as needed.

The CCC is responsible for ensuring that the approved conservation plan is implemented and followed by the camp staff through guidance from the council's Scout executive. The CCC should continuously monitor activities at the camp to ensure that the policies and procedures set forth in the plan are followed. Whenever there is a failure to do so, the CCC should take appropriate action to rectify any damage and take steps to ensure future compliance with the plan.

Where to Find Help

A camp conservation plan can be a technical document, and developing the plan can be a daunting task for the council conservation committee. Technical assistance from resource professionals should be utilized if it is available. Many state forestry departments have resources available including certified foresters and financial assistance programs to assist with conservation plan development. State fish and game departments can also provide technical assistance. Other state and federal agencies including soil conservation districts, the Natural Resource Conservation Service, the USDA Forest Service and the U.S. Fish and Wildlife Service, may also be available locally and may provide additional technical and/or financial assistance. Colleges and universities with natural resource management programs may also be of assistance, and private consultants may also be available. See Appendix C for the Conservation Plan of the Blue Ridge Scout Reservation.

Remember, a good conservation plan is an evolving document that can be updated as conditions and needs change and as resources become available. The conservation plan should be consulted when developing plans for camp facilities and programs. With the conservation plan in place, poor, uninformed, and arbitrary management decisions can be prevented. Make the camp conservation plan available and insist that those responsible for the Scout camp properties are familiar with it.

NATURAL RESOURCES MANAGEMENT

Management of the natural resources (vegetation, wildlife, fisheries, soils, water, geologic, and air) is also a core responsibility of the CCC. Conservation plans establish policies relating to the management of these resources. Specific management policies are needed to establish and/or maintain ecosystem health while serving the needs of the Scouting program and provide guidance to the on-site management personnel, including property superintendents, camp rangers, program directors, etc. The management standards established by the local, state, and federal natural resource agencies should guide the management process. Management of these resources initially requires an inventory of resources that are either present or of a transient nature, an analysis of their condition (health) and their current or potential uses for the Scouting program, and a determination of the management needed to maintain or improve their quality and any associated economic values.

CULTURAL RESOURCES MANAGEMENT

Management of the cultural resources, such as archeological, historic, aesthetic/philosophical, and other man-made resources, is another core responsibility of the CCC. Archeological and historic resources are those that reflect man's past use of the area; aesthetic/philosophic resources include landscape beauty (scenic views), the naturalness of the surroundings, and the availability of adventure opportunities and solitude; other man-made resources include contemporary structures, roads, power lines, and other such "improvements" located on the property. Management of these resources requires an initial inventory and value analysis of the resources present, their current and potential uses for the Scouting program, and their impact on the natural resource base.

The Importance of Cultural Resources

Cultural resources are everywhere—buildings, clothing, tools, toys, and the list goes on and on. Items, features, objects, and physical structures from an era gone by, usually at least 50 years ago, become our flashlight in discovering the past. How did man live in the 1700s; how were homes built in the old days; who fought a battle in a certain location; what army was camped on this ground? With cultural resources, these questions start to focus in on an answer. Thus we begin to take a peek at the life that once was, be it 1600s style of cooking, troop movements during the French and Indian War, or Civil War soldier life while camped. All visions of the past life start to come alive with cultural resources and their surroundings.

A modern-day archeologist said, "We don't know where we are going if we don't know where we have come from." Cultural resources provide us with that glance into the past to realize "where we have come from" and possibly an idea for the future!

These resources are interwoven into the fabric of society. How do local council property owners determine a cultural resource? And then, what do they do with it, how do they protect it, what are the regulations and laws that pertain to it, and what professionals do they consult to fulfill their duties as good land stewards?

This chapter provides fundamental guidance on how to identify cultural resources and what to do next.

Frequently Asked Questions About Cultural Resources and Historic Preservation

By Sarah Bridges, national cultural resources specialist and federal preservation officer; and Jerry Bernard, national geologist (both with the Natural Resources Conservation Service, an agency of the USDA).

What are cultural resources?

Cultural resources are sites, districts, structures, buildings, landscapes, and objects of some importance to a culture or community for scientific, traditional, religious, or other reasons. These resources may meet certain criteria of age (generally more than 50 years old) and are significant in our past or another society's past. Some cultural resources are listed in a state or national registry of historic places; many archaeological sites have not been listed because they are not well-known or because the owner of the land that contains the site, structure, building, landscape, or object does not wish to list it.



Burial mound



Projectile points

The National Register of Historic Places for your state may be found by using the following National Park Service website: www.nps.gov/history/nr/shpolist.htm. The National Park Service also has a database of properties that have been listed since 1996. This database may be found at: <http://www.nps.gov/history/nr/nrlist.htm>.



Historic building



Early Colonial cemetery; grave markers have sunken



800-year-old drawing made with red ochre



Chopper tool artifact

What is an archaeological site?

An archaeological site is a location where human activities once took place and left some form of material evidence behind. These may be campsites, villages, fishing or hunting sites, artifact-making sites, cooking sites, agricultural fields, building or structural remains, roads, paths, and so on that may date from the recent past to over 12,000 years ago in North America. The important thing to remember about archaeological sites is that they are very easily disturbed or destroyed by intentional or inadvertent digging or stripping of the soils. Many sites are stratified and may contain features, which means that they contain layers of remains and special-use areas (such as fire pits or foundations) from human activity and can often explain historical and prehistoric land use where written records are either nonexistent (for prehistoric and remote historic sites) or incomplete.



Ruins of building foundations



Controlled excavation by professional archaeologist

May I dig in archaeological sites or gather parts of historic buildings for a display?

Archaeological sites and historic buildings belong to the property owner. You may not dig in or collect artifacts from archaeological sites, or gather parts of historic buildings on public land (federal, state, or local government land) without proper legal permits or from private land without the property owner's permission. Some states even require permits for digging in archaeological sites on private land. These sites and buildings are fragile, created by the occupants during the past, and cannot be re-created. Restoration is not the same as preservation.

What do I do if I see damage to or looting of an archaeological site?

Contact your state archaeologist's office. A directory of all state archaeologists (from the National Association of State Archaeologists) may be found at www.uiowa.edu/~osa/nasa/. You may also contact your state historic preservation officer (SHPO). A directory of all SHPOs is available from the National Conference of State Historic Preservation Officers (NCSHPO) website at www.ncshpo.org. If you believe the site is on or adjacent to tribal lands, you may want to see if the tribe has a tribal historic preservation officer and contact that office. A directory of the tribal historic preservation officers is available from the National Association of Tribal Historic Preservation Officers at www.nathpo.org.

What do I do if I see damage or vandalism of a cultural resource that is not an archaeological site?

Contact your state historic preservation officer or local historical commission. You may locate your state historical preservation officer (SHPO) through the NCSHPO directory at www.ncshpo.org.

What do I do if I see disturbance of marked or unmarked human remains from burials?

Contact your state historic preservation officer, the state archaeologist, and your local magistrate, police, or coroner's office. State law covers each citizen's responsibility for protecting human remains on private land; federal law addresses responsibilities on federal land; and tribal law covers responsibilities on tribal land. The National Association of Tribal Historic Preservation Officers has developed a website that lists state burial law requirements: www.nathpo.org/lawenforcement.html.

How do I protect cultural resources that I own or use?

Seek technical advice from your local historical or archaeological commission, your state historic preservation officer, or the regional office of the National Trust for Historic Preservation. The trust has an excellent website with references for homeowners: www.preservationnation.org/resources/historic-homeowners.html. The trust's regional offices may be found at www.preservationnation.org/about-us/regional-offices. Your local historical commission or SHPO may be able to direct you to publications and resources in your own community to use.

What can private landowners do to protect cultural resources on their property?

The first thing any landowner can do is to locate and define the cultural resources on the property and make every effort to avoid changing or modifying the original parts. However, it is also important to keep the cultural resources in use so that they do not become an economic or logistical burden. You should also consult a local historical or archaeological commission for guidance or information. The National Park Service has produced a publication, *My Property Is Important to America's Heritage: What Does It Mean?* This useful document may be found at www.nps.gov/history/nr/publications/bulletins/myproperty. Pay special attention to the section called "What Can I Do to Help Protect My Historic Property?"

Additional Cultural Resources Information

National Park Service

www.nps.gov/index.htm

National Register of Historic Places

www.nps.gov/nr

National Center for Cultural Resources

www.nps.gov/history/

National Historic Landmarks Program

www.cr.nps.gov/nhl

Advisory Council on Historic Preservation

www.achp.gov

OUTDOOR SAFETY

The safety of the camp or other property users is a paramount responsibility of the CCC. Although this responsibility also rests with the council risk management committee, the part of the program that involves natural resources is also a responsibility of the CCC. The CCC is responsible for recommending the reduction or mitigation of hazardous conditions present on Scout property resulting from such natural conditions as hazardous trees, steep slopes, swift water, unstable surfaces, insect and arthropod hazards, poisonous reptiles and amphibians, dangerous mammals, troublesome plants, water-borne parasites, severe weather conditions, and high water/flash flood warnings.

CONSERVATION PROJECTS

Selecting Projects

Successful conservation efforts result from good planning. These guidelines can help you select suitable projects.

- Involve young people in all aspects of planning and completing projects.
- Consider the interests, skills, and time constraints of unit members and their leaders.
- Invite people from land management agencies and conservation organizations to visit unit meetings and discuss projects opportunities.

- Choose projects that will allow Cub Scouts, Boy Scouts, and Venturers to take satisfaction in what they accomplish.
- Start with small projects of a few hours duration that have a high probability of success.
- Make projects more than just work. Include hikes, campouts, swims, picnics, or other activities to increase the fun.

Pre-Project Visit to a Site

Tour a project site ahead of time with land management personnel. You and the committee can familiarize yourself with the area, assess the safety and practicality of the project, and determine what may be needed.

Answer the following questions:

- What is the task to be done?
- Why is it important?
- How many Cub Scouts, Boy Scouts, or Venturers can take part in the work?
- Does the size of the project match the amount of time people can spend working on it?
- What tools and materials are needed, and who will provide them?
- Do BSA leaders have the skill to oversee the work? If not, who can join you at the site to help supervise the effort?
- How will Scouts reach the work area?
- What safety factors are involved?
- Has a risk analysis been performed on the project?

Emergency Contact Information

Fill out the following information and keep it with you (or the site supervisor) throughout each project.

Telephone numbers of:

- BSA local council _____
- Land-management agency headquarters _____
- Agency contact home number(s) _____
- Rescue or emergency medical service _____
- Local police or sheriff _____
- List of all taking part in project, with home telephone number

Safety

Have a group first-aid kit at each project site. Agencies working with Cub Scouts, Boy Scouts, and Venturers should provide any special equipment such as hard hats or protective glasses that will increase Scouts' safety.

Other safety tips to remember:

- **Carrying tools:** Place sheaths on saws, axes, and other cutting tools when they are not in use. Carry at waist level—not on the shoulder—with sharp edges turned away.
- **Spacing:** While using tools, maintain a spacing of about 10 feet between workers to ensure a safe working area.
- **Communicating:** Scouts clearly announce what they are going to do. Everyone watches for unsafe conditions in the site or in others' work habits. Stop work until hazardous situations are corrected.
- **Lifting:** Dragging or rolling heavy objects lessens chances for injury. Before lifting, get plenty of help. Keep backs straight, bend at the knees, and use strong leg muscles to do the work.
- **Weather, weariness, hunger, and cold:** As discomfort increases, the ability to work safely decreases. Be aware of conditions that may affect each person's moods and physical conditions. If people become tired, need food, or are contending with weather that is too chilly, too hot, or too wet, take steps to resolve the situation.

Clothing and Personal Gear

Everyone should come to a conservation project dressed and equipped for the work and the weather:

- Uniform shirt or Scout T-shirt
- Long uniform pants, work pants, or jeans
- Boots or sturdy shoes
- Gloves for protection and/or warmth
- Bandanna or neckerchief
- Rain gear
- Sweater or jacket
- Hat for shade or warmth
- Water
- Food
- Sun screen
- Insect repellent

After the Project

Documentation

Log books, photographs, and videos help leaders and agency personnel determine the nature and extent of future projects. They are also ideal for parents' nights, courts of honor, and other gatherings that can showcase the value and excitement of conservation work.

In their records, Scouts can record how many hours they worked and what they accomplished, feet of trail cleared, number of bird boxes installed, species and locations of trees planted, etc., and some notes about the long-term responsibilities to maintain those projects.

Recognition

Cub Scouts, Boy Scouts, and Venturers undertaking conservation work can complete many requirements for advancement and merit badges.

Agency personnel working with young people may also be eligible for Scouting awards. Perhaps the most meaningful recognition is a sincere thank you and a handshake from volunteers in the field.

Many environmental efforts lend themselves to television, radio, and press coverage. Tell local media of upcoming projects. The stories they run may encourage other youth to become involved in caring for the resources.

Reflection

Reflecting on a conservation experience can help young people realize the importance of the work they are doing and the meaning it holds for them.

Encourage reflection by posing questions that cannot be answered by a simple "yes" or "no."

- What happened during a project?
- How did it feel?
- What did they like and not like about the project?
- What do they think their work did for the environment?

Scouts can also reflect on ways group members interacted with one another.

- Did they work together?
- Did they treat each other well?
- How can group cooperation and enjoyment of future projects be increased?

Through reflection, Cub Scouts, Boy Scouts, and Venturers can better see how their actions are affecting both themselves and the resources. Reflection is an opportunity to give the richest meaning to Scouting experiences.

Promotion of Conservation Projects

The promotion of conservation and environmental improvement projects, both on and off Scout property, is another important CCC responsibility. Cub Scouts, Boy Scouts, Venturers, and Scouters learn valuable lessons through hands-on projects that improve their local community environments, as well as the Scout property. The CCC should identify and promote appropriate projects that would benefit the Scouting program and the environment. Such projects also support Scouting's advancement and awards programs.

CONSERVATION AND OUTDOOR ETHICS

The CCC has as a component of its primary mission the responsibility to promote conservation and outdoor ethics among the council's Cub Scouts, Boy Scouts, Venturers, and Scouters. The council's outdoor ethics advocate should be an active member of the CCC. All Scouting participants should have the opportunity to receive the Leave No Trace Awareness Award and be versed in the BSA Outdoor Code. All council programs and activities should adhere to Leave No Trace guidelines, the BSA Wilderness Use Policy, and the Outdoor Code. Conservation and outdoor ethics should be emphasized in all council training.

Outdoor Ethics

For a century, Scouting has relied on outdoor camping experiences as a method for delivering the aims of Scouting. Scouting units participate in a variety of outdoor activities, including front country camping, backcountry camping, backpacking, canoeing, horseback riding, cycling, and myriad other programs. Even though outdoor recreation is growing in popularity in the non-Scouting world, Scouting still accounts for the majority of users in our nation's outdoor recreational areas.

Leave No Trace

Outdoor activities are essential to Scouting and are personally rewarding, but an unintended consequence of being in the outdoors is that we can adversely impact our outdoor recreational areas. Our public lands and many of our local council camp program areas, camp sites, trails, and backcountry areas show signs of destruction caused by overuse, inappropriate use, and carelessness. Many Scout camping areas have become compacted, contaminated, and littered with campfire remains. Some Scout camp areas have been used, for better or worse, for generations. It is not difficult to recognize the need for remembering the principles of Leave No Trace on our Scout camp properties and in our Scouting program.

Leave No Trace is a national educational effort consisting of seven principles dedicated to enhancing our outdoor ethics by increasing our awareness of the impacts that we produce while enjoying the outdoors. These principles are based on respect for nature and other users and a desire to sustain our outdoor areas in a pristine condition for future generations. The seven principles of Leave No Trace can be applied to any outdoor area, from city parks and residential backyards to large wilderness areas, national parks, and national forests. The seven principles of Leave No Trace are:

- Plan ahead and prepare.
- Travel and camp on durable surfaces.
- Dispose of waste properly.
- Leave what you find.
- Minimize campfire impacts.
- Respect wildlife.
- Be considerate of other visitors.

As a supporter of the national Leave No Trace Center for Outdoor Ethics, the BSA is dedicated to promoting the seven principles in all aspects of the Scouting program. In fact, standard 72 of the National Standards for Cub Scout/Boy Scout/Venturing Resident

Camps states, “At least one staff member has been trained as a Leave No Trace Trainer (two-day course) or Leave No Trace Master Trainer. A Leave No Trace awareness workshop is offered to leaders and campers.”

The role of the council conservation committee is to ensure that the council’s Scouting units are introduced to and abide by the principles of Leave No Trace and that *all* activities conducted on council properties adhere to the principles as well.

Council conservation committees should consider having at least one member who is a Leave No Trace Trainer or, preferably, a Leave No Trace Master Educator. These individuals can guide the conservation committee and direct the council’s Leave No Trace awareness program, including conducting training and awareness sessions at local unit meetings, summer camp, roundtables, Wood Badge courses, Powder Horn programs, camporees, and other venues where the Leave No Trace principles can be presented.

Each council property’s conservation plan should incorporate the Leave No Trace principles. Conservation projects and campsite improvement projects for units and merit badge classes can and should be designed around a Leave No Trace theme. For example, projects could include the rehabilitation or dismantling of campfire rings (minimize campfire impacts) or the improvement and stabilization of hiking trails and high-impact camp areas (travel and camp on durable surfaces). The council conservation committee should provide the leadership role in the council in promoting Leave No Trace.

It will not be easy to change the way people think and act in the outdoors, and it may take time before “Leave No Trace camping” and “Scout camping” are synonymous. However, with dedication to promoting and adhering to the principles and ethics of Leave No Trace, council conservation committees can make a difference. Through leadership, Scouting can ensure that our Scout camps and our nation’s outdoor classrooms are sustained for future generations.

For more information about Leave No Trace, visit www.LNT.org.

The Tread Lightly! Principles for Responsible Recreation

Like Leave No Trace, Tread Lightly! Inc. is a national nonprofit organization dedicated to protecting outdoor recreational access and opportunities through education and stewardship. The principles of Tread Lightly! incorporate an ethical standard for the use of motorized and mechanized recreational vehicles and equipment on the land and water. As a conservation organization, the BSA stresses that Scouts should abide by the Tread Lightly! principles when operating watercraft and motorized vehicles on council properties and other public and private lands. By following the principles of Tread Lightly!, Scout campers can help to maintain and protect our recreational trails and waterways by minimizing the impacts of our outdoor recreation.

The principles of Tread Lightly! are:

T—Travel and recreate with minimum impact. Travel on designated routes only. Travel only in areas that are open to your type of recreation. Don’t create new routes or expand existing trails. Avoid sensitive habitats like wetlands, meadows, and tundra. Cross streams only at fords where the road or trail intersects the stream.

R—Respect the environment and the rights of others. Respect and be considerate of other users so that all can enjoy a quality experience in the outdoors. When driving, yield to horses, hikers, and bikers. In a personal watercraft, be cautious around canoes, kayaks, and other boats. Respect wildlife. Be sensitive to their life-sustaining needs by keeping your distance. Comply with signage. Always obtain permission to cross private land.

E—Educate yourself, plan, and prepare before you go. Know local laws and regulations. Have the right information, maps, and equipment to make your trip safe, and know how to use them. If driving, be sure your vehicle is compatible with road and trail conditions. Know which areas and routes are open for your type of recreation.

A—Allow for future use of the outdoors; leave it better than you found it. Take out what you bring in. Properly dispose of waste. Leave what you find. Minimize use of fire. Restore degraded areas. Avoid the spread of noxious weeds by washing your gear after every trip.

D—Discover the rewards of responsible recreation. Do all you can to help preserve the beauty and inspiring attributes of our lands and waters for yourself and future generations.

Council conservation committees should require that these principles are followed on council properties, on Scout outings, and in Scouting's boating programs. Vehicle impacts should be minimized in our campsites and program areas. Responsible recreation will allow for future enjoyable use of the outdoors. Tread Lightly!

For additional information, visit www.treadlightly.org.

The Outdoor Code

As an American, I will do my best to ...

Be clean in my outdoor manners.

- I will treat the outdoors as a heritage.
- I will take care of it for myself and others.
- I will keep my trash and garbage out of lakes, streams, fields, woods, and roadways.

Be careful with fire.

- I will prevent wildfire.
- I will build my fires only where they are allowed and appropriate.
- When I have finished using a fire, I will make sure it is cold-out.
- I will leave a clean fire ring, or remove all evidence of my fire.

Be considerate in the outdoors.

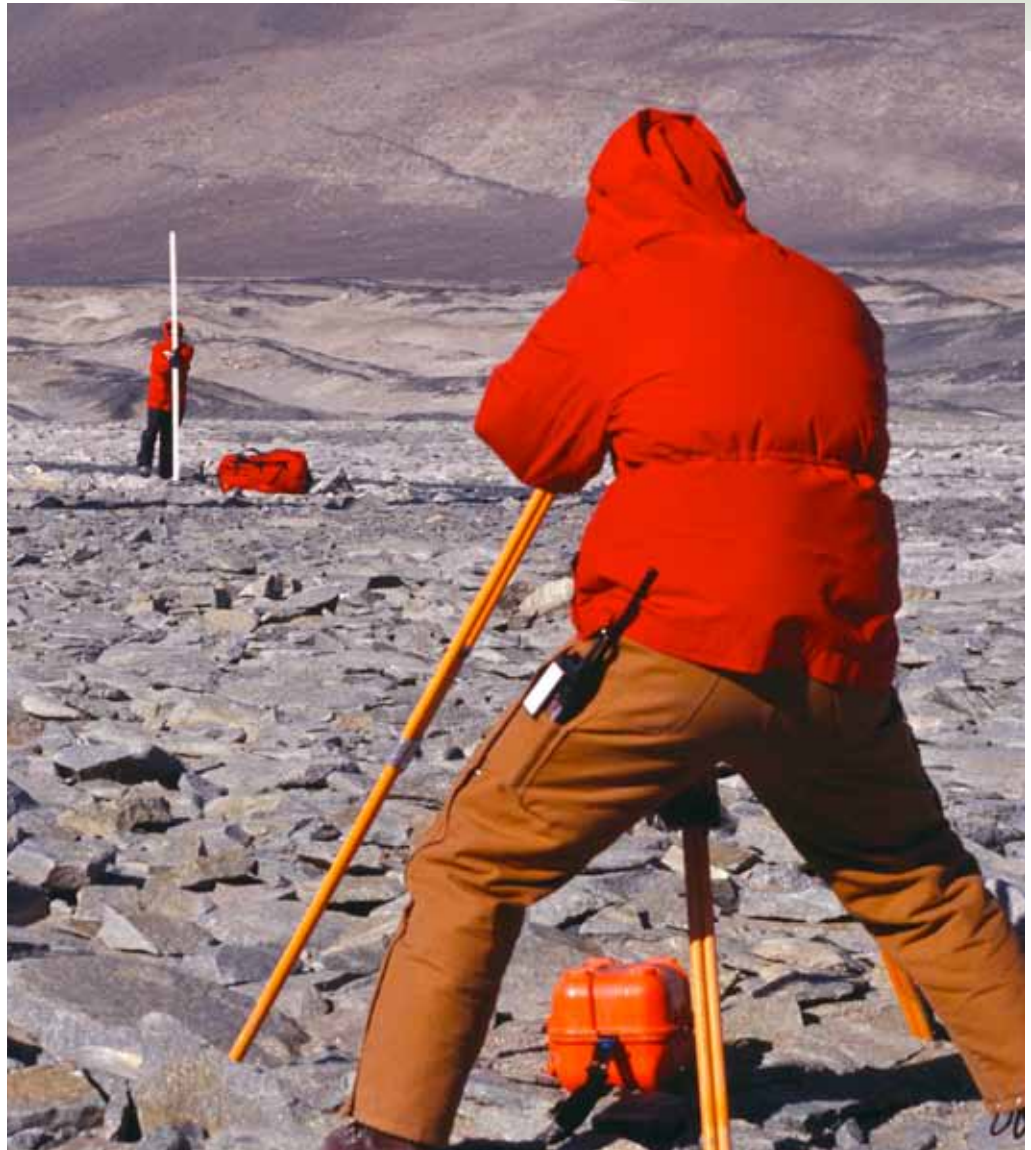
- I will treat public and private property with respect.
- I will follow the principles of Leave No Trace for all outdoor activities.

Be conservation-minded.

- I will learn how to practice good conservation of soil, waters, forests, minerals, grasslands, wildlife, and energy.
- I will urge others to do the same.

The Outdoor Code and the principles of Leave No Trace and Tread Lightly!, are the ethical standards by which we should conduct our outdoor Scouting activities. To become a Scout, one must understand and agree to live by the Outdoor Code. The council conservation committee should work to ensure that Scouts and Scouters are continually exposed to the Outdoor Code in the troop setting or at camp. For example, the Outdoor Code could be recited, along with the Scout Oath and Scout Law, at troop meetings as a part of the meeting opening or flag ceremony. Scout campers should be reminded to abide by the Outdoor Code, and the council conservation committee should ensure that the Outdoor Code is posted and referenced both in the Scout camp and throughout the council outdoor program in camp areas like the trading post, the dining hall, and campsite bulletin boards.

Camp commissioners can be valuable resources for promoting the Outdoor Code during campsite visitations and inspections at resident camp. It is the responsibility of the council conservation committee with the assistance of the camp director, camp ranger, and other camp staff members to ensure that we live by the Outdoor Code in our council camping program. The council conservation committee should always set the appropriate example and follow the Outdoor Code in all of the committee's actions.



CONSERVATION/ENVIRONMENTAL/ NATURE EDUCATION AND ADVANCEMENT

The Scouting program includes numerous advancement requirements that relate to conservation, environment, and nature study. The CCC has a responsibility to work with the council and district advancement committees and others to promote means for Cub Scouts, Boy Scouts, and Venturers to complete advancement requirements in those areas. This may include providing assistance to individual Cub Scouts, Boy Scouts, and Venturers to meet requirements; assistance to the advancement committee in recruiting adults to serve as merit badge counselors; training sessions for the nature staff at camp; instruction for merit badge workshops; suggestions for conservation service projects; or conducting a variety of other activities aimed at assisting with the council's advancement program.

The membership of the council conservation committee should possess a considerable body of knowledge that can be directed toward the development of educational programs in support of advancement. The committee should take the lead in working with council and district advancement committees and others to promote a means for Cub Scouts, Boy Scouts, and Venturers to complete advancement requirements in conservation areas. Education efforts related to conservation and natural resource management can include:

Conservation Trainers for Second Class and First Class Scouts

Identifying individuals both within and outside of Scouting who are capable of providing support for training in those conservation requirements for First Class Scouts and below. This could include direct instruction and counseling, or providing guidance to unit leaders as required. Specific requirements relating to conservation are as follows:

Tenderfoot Requirements

- Identify local poisonous plants; tell how to treat for exposure to them (Requirement 11).

Second Class Requirements

- Discuss the principles of Leave No Trace (Requirement 2).
- Identify or show evidence of at least ten kinds of wild animals (birds, mammals, reptiles, fish, mollusks) found in your community (Requirement 6).
- In addition, the required service project (Requirement 5), might have a focus in the area of conservation, nature, or natural resources.

First Class Requirements

- Demonstrate how to find directions during the day and at night without using a compass (Requirement 1).
- Identify or show evidence of at least ten kinds of native plants found in your community (Requirement 6).

Conservation and Nature Merit Badge Counselors to Support Advancement Beyond First Class

The development of a list of approved merit badge counselors should be a responsibility of the council conservation committee. The committee should maintain a current list of knowledgeable people who are able to serve as merit badge counselors in the area of nature, conservation, and natural resources. In some instances, this might require the recruitment of merit badge counselors to ensure that all of the conservation merit badges have qualified counselors.

Advisory role for service projects—Advancement requirements include service projects for the rank of Star, Life, and Eagle Scout, and for the William T. Hornaday Awards. In some instances, these rank projects might directly or indirectly focus on conservation, and the council conservation committee should be recognized as a source for providing advisers to ensure that proper conservation practices are implemented.

Conservation support for the summer camp program—The council conservation committee should take an active interest in the conservation education programs at summer camp. This might include pursuing funding sources of needed tools and equipment to support conservation training, or helping to fund the training of conservation staff members at the conservation section of a National Camping School. The committee can also help train conservation staff members. At the very least, the committee should establish contact with the camp's conservation director and offer to provide support and assistance for camp conservation education efforts.

Initiating other opportunities for conservation education within the council—The council conservation committee should be proactive in the pursuit of ways to introduce conservation, nature, and natural resource education at council and district functions. This might include providing leadership at camporees, special events, or at focused merit badge workshops.

In summary, the council conservation committee most likely represents a compilation of individuals who possess considerable expertise relating to conservation practices. The utilization of this knowledge and expertise should be directed toward natural resource education initiatives whenever practical.

Conservation Merit Badges

The merit badges that may be considered by the council conservation committee are as follows:



Archaeology



Astronomy



Bird Study



Energy



Environmental Science*



Fish and Wildlife Management



Fishing



Fly-Fishing



Forestry



Gardening



Geology



Insect Study

*Note: The Environmental Science merit badge is a requirement for Eagle Scout rank.



Landscape Architecture



Mammal Study



Nature



Nuclear Science



Oceanography



Plant Science



Public Health



Pulp and Paper



Reptile and Amphibian
Study



Soil and Water
Conservation



Weather

ENVIRONMENTAL EDUCATION/CONSERVATION PROGRAMS AND ACTIVITIES

Numerous opportunities exist for the CCC to sponsor a variety of environmental and conservation education programs and activities. These programs and activities may be wholly sponsored by the committee or provided in cooperation with other groups or agencies such as the state or local parks agency, state wildlife agency, state forestry agency, local garden clubs, local historic societies, etc. Often, CCC involvement will only be a matter of promoting programs and activities that are sponsored by other groups and agencies without the need to actively participate. Earth Day, Arbor Day, National Public Lands Day celebrations; waterways and community cleanup days; tree-planting days; and a host of similar celebrations and activities offer excellent opportunities for Cub Scouts, Boy Scouts, Venturers, and units to complete service projects that may be used for advancement or conservation awards. One of the best ways for the CCC to meet this responsibility is to sponsor conservation camporees on the council or district level.

Scope of Conservation and Environmental Education Support

The council conservation committee should develop resources to support programs involving natural resources, nature, and conservation in key Scouting program areas.

Summer Camp. The nature staff is the key organization during this program activity. The council conservation committee should provide:

- Conservation education materials
- Conservation contacts that can provide expert advice
- Guidance on conservation and environmental education
- Conservation projects for the completion of nature merit badges and advancement requirements
- Nature trails
- Nature library

Unit Camping Season. During the non-summer camp season, council camps regularly make the camp available for unit and other organizational camping. The council conservation committee should provide conservation and environmental educational materials and opportunities, including:

- Nature trails
- Nature library
- Nature activities

Special Events. If a special event planned for a council camp property has a conservation or environmental component, the council conservation committee should be part of or lead the planning committee. The committee's contacts in the natural resource and environmental community can be instrumental in planning and gaining support for the event.

SUMMER CAMP PROGRAM SUPPORT

Support of summer camp nature study and environmental and conservation programs and activities is also an important responsibility. The provision of accurate and comprehensive instruction by camp staff is essential to maintain a quality program. Camp staff assigned to teach nature, environmental, and conservation merit badges or other programs must be thoroughly prepared to teach their assignments effectively. This may require the CCC to work with the camp director and the nature director to assist in pre-camp preparation of the staff to teach in their assigned areas. In addition, the CCC might prepare camp staff lesson plans for teaching assignments to ensure appropriate instruction during camp. The CCC should also ensure that adequate educational materials are available to support the program, including merit badge pamphlets, field equipment, identification guides, reference books, and other items required in the lesson plans.

MANAGEMENT OF DEVELOPED CAMP AREAS

The CCC should be involved with the management of the developed camp environment to include camp trails, campsites, and program areas as well as the natural areas of the Scout property. Soil erosion control and drainage, vegetation management, and other concerns relative to creating and maintaining a natural appearance and resource protection are important committee responsibilities.

Property Management

One of the best showplaces for conservation and conservation practices is the local council camp, where conservation practices and ideas for better environmental techniques are put into action. This great delivery of conservation ideals is a fine way to ensure these ideals are perpetuated into the future.

This showplace of conservation and environmentally sound practices does not come without effort, and the driving force that focuses the effort and defines the vision is the council conservation committee, which sets the stage for council conservation efforts and strategies. This chapter focuses on helping the council conservation committee focus the actions of council properties to provide a friendly conservation facility.

Just as a Scout learns to swim with strong, quality instruction, a council conservation committee creates a strong, vibrant, and energetic conservation program with sound education and programs that convey conservation techniques and skills. At council properties, a great opportunity awaits to educate Scouts in proper conservation and environmental practices and projects and to inspire them to pass along their new knowledge.

Carving a Spot for a Conservation Message and Purpose

Before conservation education can begin, the council conservation committee must first obtain the attention of the Scouts and Scouters who come to camp. One method that has worked well is to incorporate a cartoonlike character to deliver a consistent conservation message. To be most effective, the character must be associated with every conservation message. Here are some tips for incorporating a conservation icon.

- Incorporate the character into all printed material dealing with conservation.
- Construct a large wood cutout of the character, and install it in a central area of camp. Use the cutout to post a conservation message of the day.
- Organize a camp conservation awards program, incorporating the character in any peripheral awards or materials (bolo ties, patches, hats, etc.).

The sky is the limit on the number of ways and methods to use the character to promote conservation in camp. A word of caution, however: Try to ensure the character does not turn into the main source for all messages in the council. The central idea is that when Scouts see this character, they think conservation.

The vehicle is created to deliver the conservation plans and ideas. What messages should the council conservation committee communicate to the Scouts and Scouters using their character? Those messages and communications should start with the main points in the camp's conservation plan. These points may include the purpose for the ban on cutting live trees, the reasons the buildings are painted brown and green, why the council endorses a recycling program, why a trail has been relocated, etc.

Physical Structures

Actions speak louder than words. Council properties should be a showplace for wise conservation practices led by a council conservation committee. Thus, the buildings and properties at camp should reflect the conservation of resources theme. This thought extends to the location of buildings and types of materials. The following are examples of conservation ideas that can be implemented.

- Clustering properly designed buildings together will make the camp seem larger than if they are spread out all over the property.
- Select appropriate paint colors. Browns, tans, and greens have a tendency to blend into the landscape for a more subtle look.
- If trails are intelligently designed and properly maintained, people will use them. This concentrates traffic on the trails and reduces foot traffic on areas without trails.
- Vegetation can be planted or encouraged to grow in locations that will provide visual barriers between activity areas.
- No matter how careful we are, the use of our facilities places stress on the environment. There should be a documented, approved plan for the rotation or rehabilitation of campsites and trails. Note: On some soil types, campsite rotation is not effective and rehabilitation only is preferred.
- If exterior lighting is used, full cutoff light fixtures reduce light pollution and can save energy by focusing the light where you want it.

Working with Property Owners

All of the conservation principles discussed above should be applied when visiting land owned by others. Keep the following tips in mind:

1. Permission to use the land of others is essential. In some cases, you might request permission from a landowner and not hear back before the trip begins. Even if permission was granted in the past, you must check in when you arrive. Don't assume that permission is automatic and begin unloading equipment. In this case, one or two members of the group should find the owner while other members wait. If you find that the owner is not available and you don't have prior permission, you must go elsewhere.
2. Many camp and activity sites, such as those found in state parks, national forests, and national parks, are owned by government entities or municipalities. Many of these have strict access policies and/or permits that need to be secured in advance. Be sure to follow the rules, which can be explained by a property official or ranger.
3. Ask where it will be convenient to park cars. Don't block traffic lanes and driveways.
4. Never write, mark, or paint on walls, ceilings, rocks, or structures. Occasionally, it may be necessary to mark a confusing trail or road. For this purpose, carry small signs with arrows drawn on them. Place the markers in suitable locations as the group enters, and collect them on the way out. Don't cut live branches or trees.
5. You might need to cross someone's property to reach a campsite or activity area. Obtain permission to do so, and remember that a landowner's income might

depend on his or her crops and livestock. Don't climb fences that might break under your weight. Always leave gates exactly as you found them. Open gates can result in extensive loss to the owner.

6. Don't tease or chase livestock. Take special care not to startle flocks of poultry. Disregard for the owner's animals can result in injury to you and/or the animals.
7. Be conscious of any actions that will disturb or inconvenience the owner. Keep noise to a minimum, especially late at night. Pick up trash, even that left by previous visitors. Don't build a fire except in cleared fire sites and with the owner's permission. It's best to use a backpacking stove. Fires must be completely out before you leave the area.
8. Don't leave behind any trace of your visit. Leave every natural thing and man-made structure exactly as it was before you entered, and remove everything you brought to the site. Put trash in suitable containers, such as plastic bags, and then take all trash home; never dump it on the ground.
9. If it is not too late at night, stop as you leave to tell the owner that you are leaving. If it is late, write a note. Remember that the owner's schedule might not be the same as yours. If the home is dark, regardless of the hour, don't disturb the owner. In either case, thank the owner when you leave. Send a follow-up letter that includes, if possible, pictures taken in the area.
10. When obtaining permission to enter a property, never underestimate the length of time you might spend there. If you specify an exit time to the owner, leave at that time. You can plan longer trips for the future. Missing an exit time could cause unnecessary concern or inconvenience for the owner.
11. When planning camps and activities, don't frequent the same well-known sites. Heavy traffic causes damage and puts a strain on owner relations (commercial or public sites excepted). In the backcountry, limit camping at one location to no more than three days to help preserve the natural environment.
12. All Cub Scouts, Boy Scouts, Venturers, and leaders should demonstrate their interest in the property of others and their appreciation by participating in or organizing an occasional cleanup to remove trash and repair damage left by thoughtless visitors and to remove writing on walls and rocks. With the owner's permission, Scouts and Scout leaders might even carry out conservation projects such as erosion control or wildlife habitat improvement. This makes an excellent group project and teaches conservation of and respect for the natural environment and property of others.

Often, people forget that camps, trails, and activity sites belong to the landowner and that they must depend on his or her goodwill. In recent years, the use of natural areas has increased tremendously. Owners of popular sites are besieged by people seeking entrance, and the result has been that many owners are becoming alienated. The rudeness and thoughtlessness of a few people can cause property owners to exclude everyone from a site.

The above rules boil down to a simple statement: Use common sense and treat the owner as you would like to be treated. If outdoor activity is to continue in this country, everyone must do all they can to make themselves welcome at each site they visit.

PROMOTION OF CONSERVATION AWARDS

Several awards for conservation and environmental improvement service are available to Cub Scouts, Boy Scouts, Venturers, and Scouters through the National Council—BSA and other groups. Notable among them are the William T. Hornaday Awards, the World Conservation Award, the Leave No Trace Awareness Award, and the Keep America Beautiful Hometown U.S.A. Award. Other awards might be offered through governmental conservation and resource management agencies, conservation and environmental organizations, and some local BSA councils. The CCC should be proactive in promoting these awards through publicity, training, and direct support of individuals or units.

Here are a few examples of available awards:

Cub Scouting

Leave No Trace Awareness Award

Requirements: <http://www.scouting.org/scoutsource/BoyScouts/Resources/Leave%20No%20Trace.aspx>

Conservation Good Turn Award

Requirements: <http://www.scouting.org/scoutsource/BoyScouts/Resources/Conservation%20Good%20Turn.aspx>

World Conservation Award

<http://www.scouting.org/scoutsource/BoyScouts/AdvancementandAwards/MeritBadges/wcons.aspx>

Boy Scouting

William T. Hornaday Awards

Requirements: <http://www.scouting.org/scoutsource/Awards/HornadayAwards.aspx>

Keep America Beautiful Hometown U.S.A. Award

Requirements: <http://www.scouting.org/scoutsource/BoyScouts/Resources/Keep%20America%20Beautiful.aspx>

Conservation Good Turn

Requirements: <http://www.scouting.org/scoutsource/BoyScouts/Resources/Conservation%20Good%20Turn.aspx>

World Conservation Award

<http://www.scouting.org/scoutsource/BoyScouts/AdvancementandAwards/MeritBadges/wcons.aspx>

Note: Scouts are eligible to receive the World Conservation Award after completing the requirements for the following merit badges: Environmental Science, Citizenship in the World, and either Soil and Water Conservation or Fish and Wildlife Management.

Venturing

The Venturing Ranger Award Core Requirements are as follows: Conservation

1. Plan, lead, and carry out a significant conservation project from one of the following categories:
 - Energy conservation
 - Soil and water conservation

- Fish and wildlife management
 - Forestry and range management
 - Air and water pollution control
 - Resource recovery (recycling)
 - Hazardous material disposal and management
 - Invasive species control
2. Make a tabletop display or presentation on your conservation project for your crew, another crew, a Cub or Boy Scout group, or another youth group.
 3. Lead a Cub Scout or Boy Scout group or another youth group in carrying out an age-appropriate conservation project from the above categories.

Leave No Trace

1. Recite and explain the principles of Leave No Trace.
2. Participate in three separate camping/backpacking trips demonstrating that you know and use Leave No Trace principles.
3. Make a tabletop display or presentation on the Leave No Trace principles and how they affect the environment and attitude of campers for your crew, another crew, a Cub or Boy Scout group, or another group; or become a Leave No trace trainer and teach a Leave No Trace Awareness course.

TRAINING PROGRAMS AND ACTIVITIES

The CCC should sponsor or support conservation-oriented training within the local council in cooperation with the council and district training committees. Established BSA training programs and activities, such as the leader basic courses, Wood Badge, and others, may need assistance from the CCC. Opportunities that may be available to provide a confirmation message include the university of Scouting, Commissioner College, and others. Specialized courses to meet certain management needs, such as a hazard tree analysis and maintenance course, a chainsaw operator's course, and a trail development and maintenance course, may also be appropriate. Training opportunities for youth through merit badge workshops, conservation awards workshops, and similar training sessions promote these important components of the Scouting program. The CCC should ensure training in Leave No Trace is available for all youth and adult leaders within the council by providing Leave No Trace Trainer courses and supporting council and district training opportunities.

SPECIAL PROGRAMS AND ACTIVITIES

The CCC may also assume responsibility for providing special programs and activities that support the council's conservation program. These may be presentations for local community organizations, displays regarding Scout conservation programs at community celebrations or in public spaces, special programs for Scout families, an awareness day for the Scout camp adjacent landowners, recognition of non-Scout assistance with the Scouting program or facilities, activities to assist the CCC with inventorying the resources on the Scout properties, hunter and fisher awareness programs,

and other programs and activities that promote Scouting and create positive public relations for the council while at the same time promoting Scouting as a viable and important youth movement.

There are a number of special programs and activities that may be sponsored by the council conservation committee to support its mission and strengthen its role within the Scouting community. Such programs and activities are limited only by the needs of the local council and the imagination of the council conservation committee.

Several such programs and activities that have proven useful include:

- Creation of a conservation committee website to post important conservation information for the Scouting community
- Establishment of a Hornaday Award scholarship program
- Establishment of a conservation grant program
- Establishment of a local council conservation service award program
- Establishment of a hazardous tree analysis and removal program
- Establishment of an environmental area adoption program for units to “adopt” campsites, trails, streams, etc., on Scout property.
- Establishment of a liaison with local colleges and universities to assist with research, inventory, and planning activities on Scout properties
- Sponsorship of a resource ramble to inventory the natural and cultural resources of the Scout property
- Sponsorship of conservation camporees at the district or council levels
- Sponsorship of reforestation efforts to enhance native vegetation or restore extirpated species
- Production of a newsletter or section in the local council newsletter relating conservation news, events, etc., relevant to the Scouting community
- Development of checklists of natural resources that are located on the Scout camp
- Production of a wildlife guide regarding safety for campers regarding wildlife found on your Scout property and other areas used by the Scouting community
- Investigation of the potential of Scout properties to be placed under a conservation easement, carbon sequestration agreement, stream banking project, wind power contract, or similar arrangements to both protect assets and generate funding.

Promotion of Conservation Projects

The promotion of conservation and environmental improvement projects, both on and off Scout property, is another important CCC responsibility. Cub Scouts, Boy Scouts, Venturers, and Scouters learn valuable lessons through hands-on projects that improve their local community environments, as well as the Scout property. The CCC should identify and promote appropriate projects that would benefit the Scouting program and the environment. Such projects should also support Scouting’s advancement and awards programs.



REVENUE OPPORTUNITIES

Scout camps can provide an opportunity for entrepreneurial natural resource activity that demonstrates that proper management of natural resources can provide economic benefit to the local council. Many councils have recognized this and creatively structured their conservation plan to engage in initiatives that produce revenue.

In addition to the financial benefits that a resource-related enterprise can bring to the camp and council, operating it at camp can serve to interest Scouts in a career in resource management. Scouts can work on nature and conservation merit badges during their stay at camp, but to witness the operation of a natural resource business taking place can broaden their understanding of the entrepreneurial value of conservation activity as it relates to our daily way of life.

The following examples identify ways in which councils have chosen to leverage opportunities present in their own camps. Council conservation committees should evaluate the unique opportunities for similar initiatives in their own camps.

TIMBER HARVEST

Patriots' Path Council, Mount Allamuchy Scout Reservation and Camp Winnebago

The initial timber harvest of Patriots' Path Council began in the spring of 2008, when approximately 30 acres of timber at the 960-acre Mount Allamuchy Scout Reservation was identified for selective cutting. This was followed by harvesting approximately 20 acres of timber at the 500-acre Camp Winnebago later in the year. Planning for the harvest had begun years prior. Prior to BSA ownership, early in the mid-1800s to early 1900s, both properties were clear-cut for charcoal and tannic acid.

The council involved a professional forester to advise on the tree species identified for harvest and the fluctuation of timber price so that maximum profit could be realized. The initial year's harvest of Mount Allamuchy Scout Reservation generated \$10,447 net profit, of which \$1,200 was spent on road material. Timber harvest at Camp Winnebago generated a profit of \$5,981.

A considerable amount of volunteer and staff man-hours preceded the harvest, which included getting the stewardship plan updated. Property directors worked with consultant foresters in identifying trees to be harvested, acquiring permits, ensuring compliance with state and local ordinances, obtaining signed contracts, evaluating loggers, etc. The committee members did an on-site inspection with camp property directors and foresters to review the projected tree stands. This was also done at summer camp to evaluate future areas for timber harvest, having previously reviewed the stands as outlined in the stewardship plans.

A number of resources were marshaled in support of this enterprise. The council accessed almost full funding from state and federal sources to help landowners develop forestry stewardship plans. The council first hired consultant foresters who developed the forestry stewardship plans. These plans were submitted to the state of New Jersey, and the council was reimbursed for most of the cost. The stewardship plans identified major tree stands and species within each camp as well as the location of protected/endangered species within the camps boundaries. Finally it provided a timeline for proper stewardship of our forests (removal of invasives, timber harvesting, trail improvement, etc.), which improves their overall health and aesthetics of the camp property.

Consultant foresters were involved to identify which stands and trees within those stands would be best to harvest as part of the state-approved forestry stewardship plan. The consultant forester received 15 to 20 percent of the gross value of the sale, and the council felt that was worth the price because only trees that they deem suitable are marked for harvest. These trees can be tracked by the council to ensure a more accurate record of the actual logging and to prevent any overzealous harvesting. The foresters also identified any diseased trees for removal. Bids, methods, and impact/damage to infrastructure such as roads and other trees were evaluated and a

logger was chosen. In addition, the selected logger was recommended by both a state forester (and committee member) and our consultant foresters. The logger was local and had attended the camps as a youth and, as a result, was very conscious of minimizing any impact.

In addition to the revenue, some other positive by-products of this activity were realized.

- Main camp roads were widened, leveled, and improved by the logger to access the stands (resulting in the council finishing these roads at minimal cost and a vast improvement to the camps' infrastructure).
- Access roads were created, reopened, or improved to provide access to the trees; these results allowed better access to camp areas for camp vehicles.
- Both old and new camping areas were brighter, airier, and expanded.
- Brush piles for animal and bird habitats were developed.
- Wood for the camps' stoves and fire rings came from limbs and unusable trunks.
- Wood chips were produced and placed in camp sites to reduce dust, mud, etc.
- The mature forests on the council property are now healthier forests.
- Reduced liability from deadfall with the harvesting of certain trees was realized.
- The harvest provided impetus to conduct a Cub Scout Family Tree Planting Day each spring; the council has planted more than 1,500 Norway Spruce seedlings (acceptable species) to improve aesthetics and increase biodiversity. This is not to replace the harvested trees but to supplement another area of the camp.
- Because the forests are mature hardwood, the planting of conifers will possibly attract new species.
- The project resulted in increased cooperation among the conservation, properties, and camping committees. The minutes of each committee meeting were sent to all chairmen to improve awareness and cooperation.

Special consideration was given so that the harvested acreage could be used for other purposes. No clear-cutting was done. Any possible metal (nails, cable, etc.) in the trees was evaluated prior to cutting. Possible damage to tent platforms, other site fixtures (water and electrical lines), and campsites was always a consideration. If trees in campsites were selected for harvest, tent platforms were removed prior to harvesting, given that the campsite might not be usable for awhile after logging due to impact.

Aesthetics was also a very important consideration. The council wanted its camps to exhibit as little observable impact as possible so trees in campsites and along roads were not considered due to the undesirable impact. The timber harvest also allowed the camp to improve the Forestry merit badge experience at summer camp by having Scouts observe what actual good forestry practices can do to improve forests and camps as well as the impact on the environment and infrastructure (positive and negative). Some opened areas were considered for native wildflower meadows that would attract more butterflies, birds, etc. Opened areas could also allow planting of tree seedlings as a conservation project. In more wooded areas, the remaining brush piles served as

animal habitat. It is important that the contract with the consultant forester be written to cover the volunteer (i.e., council conservation committee, properties committee, camping committee, and others) concerns regarding any negative effects of the logging.

Timber harvests by the council have tentatively been scheduled in each camp on an annual or biannual basis.

Patriots' Path Council recommends the consideration of timber harvests as a sound program for other councils that have similar resources. The council's advice is to do the homework first and to be selective in the choice of both consultant forester and logger. Patriots' Path Council decided on selective thinning to improve the health of existing forests. Other councils may look for new camping areas, fields, or program areas that can be obtained by more drastic harvesting. Always check for state funding to set up a stewardship program. Another recommendation is to choose the time of year when the least damage to the camp might be expected, such as during the winter when the ground is frozen or during drought/late summer when ground is hardened due to lack of rain.

Blue Ridge Mountains Council, Blue Ridge Scout Reservation

The Blue Ridge Mountains Council operates the 16,000-acre Blue Ridge Scout Reservation. The timber harvest activity under way there includes 380 acres completed with 138 acres ongoing. Timbering on the property has been going on for more than three years, with the council claiming more than \$100,000 to date from timber sales.

Some volunteer and staff time was assigned to the timber harvest activity. The reservation property superintendent, camp rangers, and program director all provided assistance to and monitoring of the harvest operations. The council conservation chair and conservation committee foresters reviewed the harvest plans and contracts prior to approval and provided monitoring of the operations. Other than the salary and transportation costs of council employees noted above, no other council resources were required.

Outside specialists and contractors were involved and included a community services forester employed by Mead Westvaco Corporation to assist with determining the extent of the harvest areas, marking the timber to be harvested, and preparing the harvest plan and contract. This forester also assisted in locating a suitable logging contractor to harvest the timber.

In addition to the revenue generated from the timber harvest, positive by-products of this activity were realized. Because all but one of the harvests were shelterwood cuts, the harvested areas have shown reinvigorated vegetative growth and reproduction, resulting in wildlife habitat improvement beneficial to the ecosystem. One cut was a salvage harvest to remove trees downed during a severe windstorm, resulting in both reinvigoration of vegetative growth and reproduction and wildlife habitat improvement while opening several program areas for safe use. The council also used some of the logs to saw into lumber for use in building structures on the reservation following the purchase of a portable sawmill from the harvest revenue.

Special consideration included the restriction of logging operation to periods of nonuse by Scouts and other groups. Care was taken to prevent undue interference with hunting and other wide-range recreational uses. The logging contractor is also required to adhere to the Virginia Department of Forestry Best Management Practices

for harvesting timber to ensure minimal damage to unharvested trees and other vegetation, protection of waterways, and reduction of soil erosion. The logging contractor worked on different sites concurrently as he prudently moved from sites too wet to harvest to upland sites that were drier, returning when the sites were more conducive to proper harvesting.

Blue Ridge Mountains Council recommends this as a sound program for councils that have the resources to invest in this type of activity. In so doing, the council suggests that it be done within the context of a well-thought-out ecosystem management plan and woodland resource conditions conducive to harvesting operations.

In summary, the council realizes its unique situation in that the size of the reservation makes it possible to harvest without interfering with normal Scout activities on the area. The council also has the services of a professional forester through Mead Westvaco Corporation at no cost, which significantly reduces out-of-pocket expenses. The council also has several highly qualified professional foresters and wildlife biologists, a forest ecologist, and other professional conservationists on its conservation committee—such in-house assistance might not be available to other councils.

See Appendix C for the Blue Ridge Scout Reservation Conservation Plan.

Seneca Waterways Council, Massawepie Scout Reservation and Cutler Scout Reservation

Massawepie Scout Reservation, in the northern Adirondacks of New York State, contains 3,600 acres with approximately 2,800 acres assigned to timber management. Cutler Scout Reservation contains 1,320 acres, with 800 acres in timber management. Note should be made that New York State has designated all of the land in their state forest preserve as “Forever Wild,” restricting such areas to their natural state. In keeping with that, the council has chosen to apply the same designation to 200 acres of its Cutler Scout Reservation holdings, which would set this acreage off-limits to any timber harvest.

The last harvest was at Massawepie Scout Reservation and consisted of 264 acres from 2007 to 2008. Both properties are divided into separate plots that are rotated on a yearly or semiyearly basis. Total revenue was \$80,000, with \$10,000 in expenses, resulting in net profit of \$70,000.

Seneca Waterways Council feels that on an annual basis, staff time assigned to this activity is minimal because both properties have outside managers that help to oversee what needs to be harvested. The council has a great volunteer base serving on its conservation committees. The committee meets six to eight times a year and has a yearly conservation meeting at each camp. At this meeting, they get input from local and regional professionals that help to maintain these properties. Due to easement requirements, a comprehensive forestry plan was required prior to any harvest of timber. At both camps, paid forestry consultants oversee the rotational plots.

Some of the logged areas are used as program areas. As a demonstration project, the council has created a logging trail where Scouts can see the benefits of what happens when sunlight gets to the forest floor. The timber harvest operation is also used as a teaching tool for summer camp conservation education. Another huge benefit has been the species diversity that happens as a result of this activity.

The things that dictated the size of the selected plots were topography, species types, and accessibility, to name a few. At both Massawepie Scout Reservation and Cutler Scout Reservation, a small in-house timber stand improvement plan generates firewood for commercial sales and for use at the camp.

The Seneca Waterways Council recommends timber harvest activity to councils that are in a position to pursue it.

CHRISTMAS TREE FARM

Connecticut Rivers Council, Camp Mattatuck

Camp Mattatuck contains 500 acres, with 15 acres being designated as a tree farm. The tree farm was previously operated by a private citizen, who sold it to the council with the provision that he would maintain a life estate to it. After his death, the council attempted to manage it but did not seek the proper resources. As a result, the acreage was not effective as a tree farm operation. Around the year 2000, a plan was developed when the ranger and staff became involved in the operation, which has improved significantly over recent years. Trees planted at that time (eight years ago) have just reached useful size. The council anticipates an annual profit of \$15,000 from the tree farm operation.

Occasional staff time is required throughout the year from the camp ranger and volunteers and mostly involves mowing of the area and trimming of the trees. Other than staff resources, water, chemicals, mowers, tractor with a brush hog, bow saws, and trimming knives and shears are needed, as is a nearby storage shed for these implements.

The council did not involve any outside consultants or specialists in this initiative.

At this time, the trees have not matured to the degree that a large harvest can be made, and only a few have been sold to individuals. However, the council plans to annually sell approximately 300 trees to individuals at a price of \$30 per tree and an additional 300 trees in bulk to local vendors, civic organizations, and Scout groups at a price of \$20 per tree for resale or fundraising for those entities.

The operations plan for the tree farm is to plant approximately 700 trees per year to maintain the cycle and replace the harvested trees. It is recommended that if other councils have the opportunity to engage in the operation of a tree farm, they project adequate manpower to plant trees, trim on an annual basis, and undertake mowing of the area around trees.

CRANBERRY BOG OPERATION

Old Colony Council, Camp Squanto

Camp Squanto is a 650-acre camping facility located in Plymouth, Massachusetts, deep in the woods of Myles Standish State Forest. There is one bog on the current Old Colony Council property that is owned by an outside company.

The council is in negotiation with AD Makepeace (part of the Ocean Spray group) to do an acre-for-acre land transfer that trades the lower portion of camp property (where there is a well head ready for use) in exchange for land to complete ownership

around the camp's pond (Fawn Pond) on the eastern side extending the property line to the Agawam River.

Following the transfer, the council will gain ownership of three cranberry bogs. The two bogs south of the pond are going to be abandoned due to low productivity. The camp may choose to use them as an opportunity to teach Scouts about the cranberry industry.

A northern bog is a good producing bog that AD Makepeace will lease from Old Colony Council on a 10-year basis. AD Makepeace will farm and care for the bog, and the council will receive 3 to 5 percent of the revenue the bog produces, projected at \$1,000 to \$3,000 a year. If AD Makepeace decides to rehabilitate this 5-acre bog, planting a new hybrid species, the council will pursue a 20-year lease, and the income would also increase.

SUMMARY

Creative thinking by councils for the use of their property's natural resource opportunities can result in many other good examples of natural resource use while generating revenue for the council.

Some examples might include the use of the camp for an environmental education day where school groups can learn about nature and ecology. Fishing tournaments can also be considered as revenue-producing activities. Councils should evaluate the resources that they have and assess the manner in which local conditions can make these resources attractive as entrepreneurial activities.



APPENDIX

APPENDIX A: CONSERVATION RESOURCES

Federal Agencies

Advisory Council on Historic Preservation: www.achp.gov

Advisory Council on Historic Preservation (State Historic Preservation Officers):
www.achp.gov/shpo.html

Bureau of Land Management: www.blm.gov

National Park Service: www.nps.gov

National Park Service (National Register of Historic Places): www.nps.gov/nr

National Parks Service (National Historic Landmarks Program): www.nps.gov/nhl

Natural Resources Conservation Service (NRCS): www.nrcs.usda.gov. State NRCS offices: www.nrcs.usda.gov/about/organization/regions.html

USDA Forest Service: www.fs.fed.us

U.S. Fish and Wildlife Service: www.fws.gov

U.S. Geological Survey: www.usgs.gov

State Agencies

State forestry department, state fish and game department, state environmental agencies. Some states have commissions and task forces that deal with private property situations and land right-of-ways. Check your local legislator's office for guidance.

Private Organizations

National Environmental Education Foundation: www.neefusa.org

Nature Conservancy, The: www.nature.org

Society of American Foresters: www.safnet.org

APPENDIX B: RECOGNIZING WETLANDS

(Adapted from the U.S. Army Corps of Engineers informational pamphlet)

This is a prime example in what way a well organized conservation committee may assist the council in progressing through a complex analysis like identifying wetlands.

What Is a Wetland?

The U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency define wetlands as “those areas that are inundated or saturated by surface or ground-water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”

Wetlands are areas that are covered by water or have waterlogged soils for long periods during the growing season. Plants growing in wetlands are capable of living in saturated soil conditions for at least part of the growing season. Wetlands such as swamps and marshes are often obvious, but some wetlands are not easily recognized, often because they are dry during part of the year or “they just don’t look very wet” from the roadside.

Some of these wetland types include, but are not limited to, many bottomland forests, pocosins, pine savannahs, bogs, wet meadows, potholes, and wet tundra. The information presented here usually will enable you to determine whether you might have a wetland. If you intend to place dredged or fill material in a wetland or in an area that might be a wetland, contact the local Corps district office for assistance in determining if a permit is required.

Why Is It Necessary to Consider Whether an Area Is a Wetland?

Section 404 of the Clean Water Act requires that anyone interested in depositing dredged or fill material into “waters of the United States, including wetlands,” must receive authorization for such activities. The Corps has been assigned responsibility for administering the Section 404 permitting process. Activities in wetlands for which permits may be required include, but are not limited to:

- Placement of fill material
- Ditching activities when the excavated material is sidecast
- Levee and dike construction
- Mechanized land clearing
- Land leveling
- Most road construction
- Dam construction

The final determination of whether an area is a wetland and whether the activity requires a permit must be made by the appropriate Corps district office.

How Can Wetlands Be Recognized?

The Corps uses three characteristics of wetlands when making wetland determinations: vegetation, soil, and hydrology. Unless an area has been altered or is a rare natural situation, wetland indicators of all three characteristics must be present during

some portion of the growing season for an area to be a wetland. Each characteristic is discussed below.

However, there are some general situations in which an area has a strong probability of being a wetland. If any of the following situations occur, you should ask the local Corps office to determine whether the area is a wetland:

- Area occurs in a floodplain or otherwise has low spots in which water stands at or above the soil surface during the growing season. *Caution:* Most wetlands lack both standing water and waterlogged soils during at least part of the growing season.
- Area has plant communities that commonly occur in areas having standing water for part of the growing season (e.g., cypress-gum swamps, cordgrass marshes, cattail marshes, bulrush and tule marshes, and sphagnum bogs).
- Area has soils that are called peats or mucks.
- Area is periodically flooded by tides, even if only by strong, wind-driven, or spring tides.

Many wetlands can be readily identified by the general situation stated above. For the boundary of these areas and numerous other wetlands, however, it is unclear whether these situations occur.

In such cases, it is necessary to carefully examine the area for wetland indicators of the three major characteristics of wetlands: vegetation, soil, and hydrology. Wetland indicators of these characteristics, which may indicate that the area is a wetland, are described on the following pages.

Vegetation Indicators

Nearly 5,000 plant types in the United States may occur in wetlands. These plants, known as hydrophytic vegetation, are listed in regional publications of the U.S. Fish and Wildlife Service.

However, you can usually determine if wetland vegetation is present by knowing a relatively few plant types that commonly occur in your area. For example, cattails, bulrushes, cordgrass, sphagnum moss, bald cypress, willows, mangroves, sedges, rushes, arrowheads, and water plantains usually occur in wetlands.

Other indicators of plants growing in wetlands include trees having shallow root systems, swollen trunks (e.g., bald cypress, tupelo gum), or roots found growing from the plant stem or trunk above the soil surface. Several Corps offices have published pictorial guides of representative wetland plant types.

If you cannot determine whether the plant types in your area are those that commonly occur in wetlands, ask the local Corps district office or a local botanist for assistance.

Soil Indicators

There are approximately 2,000 named soils in the United States that may occur in wetlands. Such soils, called hydric soils, have characteristics that indicate they were developed in conditions where soil oxygen is limited by the presence of saturated soil for long periods during the growing season. If the soil in your area is listed as hydric by the Natural Resource Conservation Service, the area might be a wetland.

If the name of the soil in your area is not known, an examination of the soil can determine the presence of any hydric soil indicators, including:

- Soil consisting predominantly of decomposed plant material (peats or mucks)
- Soil having a thick layer of decomposing plant material on the surface
- Soil with a bluish gray or gray color below the surface, or if the major color of the soil at this depth is dark (brownish black or black) and dull
- Soil with the odor of rotten eggs
- Soil that is sandy and has a layer of decomposing plant material at the soil surface
- Soil that is sandy and has dark stains or dark streaks of organic material in the upper layer below the soil surface. These streaks are decomposed plant material attached to the soil particles. When soil from these streaks is rubbed between the fingers, a dark stain is left on the fingers.

Hydrology Indicators

Wetland hydrology refers to the presence of water at or above the soil surface for a sufficient period of the year to significantly influence the plant types and soils that occur in the area. Although the most reliable evidence of wetland hydrology may be provided by gauging station or groundwater well data, such information is limited for most areas and, when available, requires analysis by trained individuals. Thus, most hydrologic indicators are those that can be observed during field inspection. Most do not reveal the frequency, timing, or duration of flooding or the soil saturation.

However, the following indicators provide some evidence of the periodic presence of flooding or soil saturation:

- Standing or flowing water is observed on the area during the growing season.
- Soil is waterlogged during the growing season.
- Water marks are present on trees or other erect object. Such marks indicate that water periodically covers the area to the depth shown on the objects.
- Drift lines, which are small piles of debris oriented in the direction of water movement through an area, are present. These often occur along contours and represent the approximate extent of flooding in an area.
- Debris is lodged in trees or piled against other object by water.
- Thin layers of sediments are deposited on leaves or other objects. Sometimes these become consolidated with small plant parts to form discernible crust on the soil surface.

Wetland Determination

One or more indicators of wetland vegetation, hydric soil, and wetland hydrology must be present for an area to be a wetland. If you observe definite indicators of any of the three characteristics, you should seek assistance from either the local Corps district office or someone who is an expert at making wetland determinations.

This information is not intended to be used to make a final wetland determination or delineation; it is intended, however, to provide some general information concerning wetlands identification.

What to Do if Your Area Has Wetlands That You Propose to Alter

Contact the Corps district office that has responsibility for the Section 404 permitting process in your area. This office will assist you in defining the boundary of any wetlands on your property and will provide instructions.

APPENDIX C: EXAMPLES OF COUNCIL CONSERVATION COMMITTEES IN ACTION

Sam Houston Area Council

The Sam Houston Area Council, located in Houston, Texas, has produced an educational handout that council members can distribute to troops and leaders about how they can participate in conservation activities at all levels.

The Great Outdoors— Not So Great Anymore?

Did you know?

Invasive species are infiltrators that invade and cause harm to ecosystems beyond their historic range. Their invasion can threaten native ecosystems or commercial, agricultural, or recreational activities dependent on these ecosystems. They may even harm the health of humans. Human actions, both unintentional and intentional, are the primary means of invasive species introductions and spread to new locations.

The use of **pesticides** can negatively impact fish and wildlife, including fisheries resources, threatened and endangered species, migratory birds and their habitats. Pesticides include products, such as insect repellants, weed killers, disinfectants and swimming pool chemicals, which are designed to prevent, destroy, repel or reduce pests such as insects, mice and other animals, weeds, fungi, bacteria and viruses. Pesticides are used in nearly every home, business, farm, school, hospital and park in the United States and are found almost everywhere in our environment. In fact, recent studies of major rivers and streams documented that 96% of all fish, 100% of all surface water samples and 33% of major aquifers contained one or more pesticides at detectable levels. Pesticides were identified as one of the 15 leading stream pollutants.

The Woods Hole Oceanographic Institution calls **nutrient pollution** the most widespread, chronic environmental problem in the coastal ocean. The discharges of nitrogen, phosphorus, and other nutrients come from agriculture, waste disposal, coastal development, and fossil fuel use. Once nutrient pollution reaches the coastal zone, it stimulates harmful overgrowths of algae, which can have direct toxic effects. Zooplankton eat the toxic algae and begin passing the toxins up the food chain, affecting edibles like clams, and ultimately working their way up to seabirds, marine mammals, and humans. The result can be illness and sometimes death.

. . . and there's more—much more.



What can you do? Learn, take action, get recognized!
Some examples . . .

If you're a Cub Scout or Webelos Scout,



- Understand why it's important to protect the environment—our air and water.
- Get involved with your Pack in community clean-up activities and other outdoor service projects.
- Earn a Hornaday Unit Certificate.

If you're a Boy Scout or Varsity Scout,



- Earn the various merit badges that have to do with conservation and the environment.
- Understand the principles of Leave No Trace (LNT).
- Get involved in outdoor service projects for rank advancement.
- Teach LNT principles to your unit. Practice LNT on camp-outs.
- Earn a Hornaday Award—the badge or one of the medals, the unit certificate.

If you're a Venturer or Sea Scout,



- Complete the Leave No Trace Ranger core requirement and the requirements for two conservation-related Ranger electives—Ecology and Plants & Wildlife.
- Provide opportunities for other units to participate in outdoor service projects—lead.
- Understand the principles of Leave No Trace (LNT).
- Teach LNT principles to your unit and to other Scout units—crews, troops, and packs.
- Earn a Hornaday Award—the badge or one of the medals, the unit certificate.

"The more clearly we can focus our attention on the wonder and realities of the universe about us, the less taste we shall have for destruction."

Rachel Carson

If you are a youth member of the OA,



- Understand the nature and responsibilities of cheerful service—the OA is more than a pocket flap.
- Develop practical ways to put cheerful service into practice in the outdoors—to help Scout units and the Scouts carry out the activities exemplified above.
- Demonstrate leadership and good example: earn a Hornaday Award—the badge or one of the medals, the unit certificate.

If you are an adult member of the OA,



- Understand the nature and responsibilities of cheerful service—the OA is more than a pocket flap.
- Develop practical ways to put cheerful service into practice in the outdoors—to help Arrowmen help Scout units and the Scouts carry out the activities exemplified above.
- Complete a Project WILD course.
- Use Project WILD activities in lodge learning activities.
- Become a Hornaday Award Advisor (take the course at University of Scouting).
- Become a Leave No Trace Master Educator.
- Earn the SHAC Adult Conservation Award and/or a Hornaday Gold Badge.
- With your unit, earn the Hornaday Unit Certificate.

If you are an adult unit leader,



- Understand the issues and responsibilities we have as Scouts to protect the outdoors and to encourage conservation efforts in our units—especially outdoor service projects.
- Encourage your Scouts to think about the issues and how they can positively impact what's happening—remember: in this area, we want to teach our youth how to think, not what to think.
- Complete a Project WILD course.
- Use Project WILD activities in unit learning activities.
- Become a Hornaday Award Advisor (take the course at University of Scouting).
- Earn the SHAC Adult Conservation Award and/or a Hornaday Gold Badge.
- With your unit, earn the Hornaday Unit Certificate.

No matter who you are or what you do,
*go outside and explore the wonders of our natural world
at a National Wildlife Refuge, a local park, or even your own back yard.*

For more information,

<http://www.scouting.org/index.html>

Hornaday Awards, Leave No Trace

<http://www.samhoustonbsa.org/Home/>

Camping, Conservation

<http://scoutingtexas.com/>

Multiple resources

"This we know: the earth does not belong to man, man belongs to the earth. All things are connected like the blood that unites us all. Man did not weave the web of life, he is merely a strand in it. Whatever he does to the web, he does to himself."

Attributed to Chief Seattle, 1854

Longs Peak Council

The following brochure, produced by the Longs Peak Council in Greeley, Colo., summarizes the activities of the conservation committee, lists council camp properties, and provides conservation scholarship and awards information.



CONSERVATION and SCOUTING

WHERE EARTH DAY IS EVERY DAY!



**CONSERVATION COMMITTEE
LONGS PEAK COUNCIL
BOY SCOUTS OF AMERICA**



COUNCIL CONSERVATION COMMITTEE

The Longs Peak Council Conservation Committee is comprised of natural resources professionals, Scouters with a conservation interest, camp property committee representatives, youth holders of the *William T. Hornaday Conservation Award*, and district representatives. The committee approves conservation awards, conservation grant expenditures, Hornaday Scholarship awards, and oversees camp property conservation efforts. The committee also selects the annual Project SOAR patch design, and oversees the "gold seal account". The committee meets at least twice per year.



LEAVE NO TRACE CAMPING



Leave No Trace camping is the basic fundamental approach to all outdoor Scouting activities in the Longs Peak Council. The council promotes Leave No Trace camping, and has been deeply involved with its training programs since 1994. The Longs Peak Council is a member of the Leave No Trace Center for Outdoor Ethics.





CONSERVATION AWARDS

Outside of specific rank requirements, electives and achievements, academic achievement awards, and merit badges, these categories of conservation awards are available:

PROJECT SOAR (Save Our American Resources) is a Longs Peak Council program since 1980 in which Scouts and adults that complete a minimum of at least three conservation / environmental service hours may purchase the annual Project SOAR patch.

WORLD CONSERVATION AWARD is presented with different requirements at the Cub Scout, Boy Scout and Venturing program levels. Requirements can be reached via the "conservation page" on the Longs Peak Council website.

WILLIAM T. HORNADAY AWARDS are three national level awards for Boy Scouts and Venturers that include the *Hornaday Badge*, *Bronze Medal*, and *Silver Medal*. Requirements for these awards include "significant" service projects, for Boy Scouts specific merit badges, and for Venturers special additional requirements.

In addition, there is a *Unit Level Certificate* available for packs/ troops/crews that have at least 60 % of their membership participate in a conservation service project. Two adult awards are also available as recognition items: The *Gold Badge* may be awarded by the Council Conservation Committee to an adult Scouter who has demonstrated significant conservation involvement and leadership as a volunteer. The *Gold Medal* is awarded by the National Conservation Committee for exceptional service to conservation on a regional or national basis.

Since the inception of the *William T. Hornaday Conservation Awards*, over 75 Youth and adults have been recognized with this award in the Longs Peak Council.



CONSERVATION GRANT PROGRAM

Administered by the Council Conservation Committee, the Conservation Grant Program is available in support of conservation projects at council camps, and for other conservation efforts within council boundaries. Grants are awarded up to a maximum of \$1,000, and special consideration is given to projects that involve Scouts in the implementation of the project. Grant applications may be downloaded from the "conservation page" of the council website. Grant proposals are normally acted upon at the spring and fall meetings of the Council Conservation Committee.

HORNADAY AWARD SCHOLARSHIP

The Longs Peak Council awards, when warranted, an annual conservation scholarship to a selected youth applicant within the council who has been awarded the *William T. Hornaday Conservation Award*. Applicants may be eligible at the following levels: *Hornaday Badge* \$1,000, *Bronze Medal* \$3,000, and *Silver Medal* \$4,000. Applications for the scholarship are available from the Council Conservation Committee Chair.

CONSERVATION PROGRAM FUNDING

Funding for the purchase of Project SOAR patches, the conservation grant program, and the Hornaday Scholarship Award is solely obtained through the annual sale of Project SOAR patches.

COUNCIL CAMP PROPERTIES

The Longs Peak Council oversees five beautiful camp properties. In Wyoming can be found Camp Laramie Peak (CLP) near Wheatland; Chimney Park Scout Camp near Laramie on property leased from the Forest Service, USDA; and Camp Jack, leased from Wyoming State Parks and Historical Sites at Curt Gowdy State Park. Located in Colorado is Camp Patiya west of Boulder; and the 3,200 acre Ben Delatour Scout Ranch (BDSR) at Red Feather Lakes. Volunteer camp property committees oversee natural resource conservation efforts at most properties, and approve all conservation projects.



RECENT CONSERVATION PROJECT EFFORTS

Conservation project efforts in recent years have included: major forest mitigation, fish restoration efforts, wildlife habitat enhancement, range management, forest fire recovery, invasive species removal, bluebird housing trails, recycling, and conservation education. It is estimated that on an annual basis Longs Peak Council Scouts contribute over 10,000 hours of conservation and environmental service.

RECOGNITION OF SERVICE

Conservation efforts in the Longs Peak Council have been recognized by various groups and agencies with the council being presented with these awards:

Larimer County (Colorado) Environmental Stewardship Award – 2007
 Teammate of the Year Award – Colorado State Forest Service – 2005
 Volunteer Service Award, U.S. Department of Agriculture - 1992-1993
 National Semi-Finalist, Take Pride in America - 1992
 Certificate of Merit, National Arbor Day Foundation - 1991
 Gold Seal Award, U.S. Department of Agriculture – 1984 and 1987
 Sol Feinstone Environmental Award, International Congress of Ecology - 1986
 Arbor Day Award, National arbor Day Foundation – 1983
 Green Seal Award, U.S. Department of Agriculture – 1982

CONSERVATION WEBPAGE

Additional details on most topics mentioned in this brochure, along with other conservation information, can be found on the Longs Peak Council website:

www.LongsPeakBSA.org



**Conservation Committee
 Longs Peak Council
 Boy Scouts of America
 PO Box 1166
 Greeley, Colorado 80632-1166**



COUNCIL CONSERVATION COMMITTEE

PURPOSE OF THE COMMITTEE

The Council Conservation Committee is charged with the promotion and implementation of environmental conservation educational efforts within the council. The committee operates as a sub-committee of the Council Camping Committee.

COMMITTEE MEMBERSHIP

The Council Conservation Committee consists of the following members:

Committee Chair
Special Events Heads
Project SOAR Coordinator
Camp Property Committee Representatives
District Representatives
Members at Large
Youth Hornaday Award Holders
Council Professional Staff Adviser – ex-officio

TERMS OF COMMITTEE MEMBERSHIP

The Conservation Committee Chair is appointed by the Council Vice President for Program and the Council Camping Committee Chair, and serves a term of one calendar year. Special events heads and Project SOAR coordinator are appointed by the Council Conservation Committee Chair for one year terms. Members at large may be appointed by the Council Conservation Committee Chair on an annual basis. District representatives are appointed by their respective district chair or district camping chair. Camp property representatives are appointed by their respective camp property committee chair. The chairs, heads and members at large may be reappointed annually at the discretion of the Council Conservation Committee Chair.

MEETING SCHEDULE

The Council Conservation Committee is to meet at least two times per year at a location and time as determined by the committee's chair.

SPECIAL DUTIES OF THE COMMITTEE

The Council Conservation Committee will have these special duties to be performed on an annual basis:

1. To coordinate all council wide conservation educational efforts.
2. To promote the Project SOAR (Save Our American Resources) Program.
3. To select the design of the annual Project OSAR patch.
4. To determine the disbursement of Project SOAR funds.
5. To promote the William T. Hornaday Conservation Award program, and to serve as the council board of review for applicants.

6. To encourage districts and camp property committees to promote educational efforts related to conservation, environmental awareness, and leave no trace camping.
7. To disseminate information about National BSA conservation programs and activities.
8. To plan and implement conservation activities and efforts for the council.
9. To assist districts and camp property committees with conservation programs and efforts.
10. To develop and maintain relationships with conservation related governmental agencies within the council.

THE CONSERVATION COMMITTEE CHAIR'S DUTIES

The Conservation Committee Chair will be successful when he/she accomplishes the following:

1. Has all committee membership positions filled.
2. Has a minimum quarterly contact with each committee member.
3. Conducts at least two committee meetings per year.
4. Holds members of the committee accountable for their accepted responsibilities.
5. Represents the Conservation Committee to the Council Camping Committee...
6. Meets quarterly with the committee's professional staff adviser.
7. When all "special duties" of the committee have been performed.
8. Participates in the council's Friends of Scouting and capital fund-raising campaigns.

Updated June 2009

Capitol Area Council

The Capitol Area Council in Austin, Texas, offers extensive Hornaday Award Weekend information on its website: www.hornadaybsa.org/index.html. The site provides a history of the William T. Hornaday Awards, information about merit badge counselors, details about conservation projects, and answers to frequently asked questions. The following Hornaday Award Weekend schedule is available for download on the site.



William T. Hornaday
(1854-1937)

April 15th – 17th 2011 Hornaday Award Weekend Schedule



Hornaday
Silver Medal

Time	Event	Location
Friday Night		
5:30pm - 9:00pm	Registration	Lindsay Lodge
6:30pm - 9:00pm	Session I	Lindsay Lodge
7:30pm - 9:00pm	Cracker Barrel	Dining Hall
Saturday		
6:45am - 7:00am	Flag Ceremony	Flag Poles
7:00am - 8:15am	Breakfast	Dining Hall
7:15am - 8:00am	Late Registration	Lindsay Lodge
8:30am - 12:00pm	Session II	Disburse from Dining Hall
12:00pm - 1:00pm	Lunch	Dining Hall
1:30pm - 5:00pm	Session III	Disburse from Dining Hall
6:00pm - 7:00pm	Supper	Dining Hall
6:45pm - 7:30pm	Hornaday Overview	Dining Hall
7:30pm - 10:00pm	Session IV	Disburse from Dining Hall
Sunday		
6:45am - 7:00am	Flag Ceremony	Flag Poles
7:00am - 7:15am	Chapel Service	Parade Grounds
7:15am - 8:15am	Breakfast	Dining Hall
8:30am - 12:00pm	Session V	Disburse from Dining Hall
12:00pm -	Weekend Ends	



Blue Ridge Mountains Council

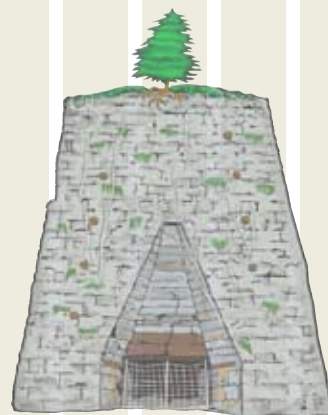
The Blue Ridge Mountains Council provides its Conservation Plan for the Blue Ridge Scout Reservation as a PDF available for download on its site.



Conservation Plan

Blue Ridge Scout Reservation

2010–2015



BLUE RIDGE MOUNTAINS COUNCIL
BOY SCOUTS OF AMERICA

The Conservation Plan for the Blue Ridge Scout Reservation is presented in three parts:

I. Ecosystems Management Plan

II. Conservation Program Plan

III. A Guide to the Natural and Cultural Resources of the Blue Ridge Scout Reservation and their use

The Ecosystem Management Plan is designed to provide guidance in the management of the terrestrial and aquatic ecosystems present on the Blue Ridge Scout Reservation. In addition, it will provide guidance to manage the aerial and cultural resources inherent to the Reservation.

The Conservation Program Plan focuses on activities, advancement, awards, community and camp service and training that promote conservation goals. It will serve as a guide for Scouts and Scouters who desire to incorporate conservation as an integral part of their individual and unit program.

The Guide to the Natural and Cultural Resources of the Blue Ridge Scout Reservation and their use is designed for scouts, scouters and other users of the Reservation to identify the forms of vegetation, wildlife and other natural resources and the cultural resources present. In addition to identifying the resources present on the Reservation and where they can be found, it will highlight those of special concern (endangered, rare etc) and those that present specific hazards. The guide will also relate policies regarding consumptive uses (hunting, fishing, gathering wild edibles or other vegetation, etc) as well as the use of trails, camps, back country areas, and other reservation educational uses.

Council Conservation Committee

(as of February 2010)

Dr. Bill Shiner, Scouter/Forester, Max Meadows, Committee Chairman
Greg Harmon, BRMC Staff, Committee Advisor
Mark Alley, Scouter, Building Contractor, Pulaski
Dan Brown, Scouter, Blacksburg
Dr. Jim Chamberlain, USFS—Non-timber Forest Products, Blacksburg
Jim Clark, Forester, Christiansburg
John Copeland, VDGIF Fisheries Biologist, Blacksburg
Dr. Carol Croy, USFS—Forest Wildlife Biologist, Blacksburg
Steve Croy, USFS—Ecologist/Fire Planner, Blacksburg
Dean Downs, Scouter, Lynchburg
Joey Fagan, Karst Specialists, Blacksburg
David Foster, Scouter, Salem
Bob Garst, Scouter, Forester, Roanoke
Tom Greene, USDA—NRCS District Conservationist, Christiansburg
David Hancock, Scouter, NRCS Soil Conservation Tech., Wytheville
Cliff Logue, Scouter, Teacher, Bent Mountain
Gordon Love, Scouter, Geologist, Blacksburg
Dr. Jeff Marion, Scouter, Recreation Ecologist, Blacksburg
Jim Parkhurst, Scouter, Wildlife Specialist, Blacksburg
Barry Robinson, Extension Agent-Horticulture, Christiansburg
Joe Roudabush, Scouter, Outdoor Ethics Advocate, Blue Ridge
Graham Simmerman, Scouter, Cultural Resources Expert, Radford
Lee Spradlin, Scouter, Forester (Mead Westvaco), Lynchburg
Betsy Stinson, VDGIF—District Wildlife Biologist, Blacksburg
Chris Wiley, Scouter, Forester (Appalachian Power), Lynchburg
John Copeland, VDGIF, Fisheries Biologist, Blacksburg
Bob Garst, Scouter, Forester, Roanoke
Jim Zinck, Scouter, VA Office Plant & Pest Services—GM Specialist, Hardy
Russ McDaniel, Scouter, Geologist, Roanoke

Part I. Ecosystem Management Plan

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- VII. Maps**
 - A. Location Map**
 - B. BRSR Map**
 - C. Ecosystem Map**
 - D. Management Zone Map**

VIII. References

I. Purpose and Policy

The purpose of the Ecosystems Management Plan is to establish guidelines for the operation and maintenance of the Blue Ridge Scout Reservation commensurate with sound conservation practice and procedure, to enhance the health of its ecosystems, to insure its natural character and to support the program of the Blue Ridge Mountains Council, Boy Scouts of America.

Policies to implement the plan shall be established by the Executive Board of the Blue Ridge Mountains Council, Boy Scouts of America following consultation with conservation professionals concerning the impact and efficacy of the proposed policies.

MANAGEMENT PHILOSOPHY. The Ecosystems Management Plan for the Blue Ridge Scout Reservation is predicated upon a management philosophy that recognizes the inherent values of its natural and cultural resources. While it is deemed essential that any management scheme also recognize the inherent importance of managing for user safety and satisfaction, the importance of understanding the nature and complexities of the resource base is vital to the health and vitality of the Reservation's ecosystems.

The primary constant in natural systems is change. Natural systems are dynamic; stability is a rare and short-lived phenomena. Management of natural systems must be based on the recognition and accommodation of the challenges imposed by constant change.

While we tend to focus on the biological and geophysical processes as the principal agents of change, the influence of human activities is increasing in both magnitude and importance. Human induced changes can (and do) alter the natural changes occurring within an ecosystem. Many of these human induced changes are outside the control of the Reservation management and therefore require special attention to enable their accommodation.

It is important to realize that the accommodation of and adaptation to natural change is in some cases the "easiest, least costly, most effective and most appropriate response (1)" for resource management. It is also important to realize that responsible resource management will often require modification of natural change to guide ecosystem development in a desired direction. While non-interference with natural processes is often the surest course to follow in conserving amenity and environmental values, non-action may not enable reservation management to meet the goals of user safety, user satisfaction or resource management.

All too often when management activities are implemented in an effort to solve problems by resisting or attempting to alter natural processes, the result is numerous secondary problems that can be both difficult and costly to mitigate. While such action may be deemed necessary on occasion to assure user safety and/or aesthetic integrity, such actions should be carefully considered as to their potential concomitant liabilities.

"The measuring and monitoring of change is the keystone to resource management (1)" a process of establishing baseline data, coupled with ongoing monitoring activities is essential to establish and maintain viable resource management on the Reservation.

References:

- (1) Dolan, R., B. P. Hayden, and G. Soucie. 1978. Environmental dynamics and resource management in the U.S. National Parks. *Env. Mgt.* 2(3):249-258
- (2) Leak, W.B., et.al. 1997. Applied ecosystem management on nonindustrial forest land. USDA-FS, GTR NE-239. 30p.
- (3) Carey, A.B. 2007. AIMing for healthy forests: active, intentional management for multiple values. USDA-FS, PNW-GTR 721. 447p.

II. The Blue Ridge Scout Reservation

A. Description and Location

The Blue Ridge Scout Reservation is a 17,500 acre tract in the southeastern corner of Pulaski County, Virginia.

The Reservation encompasses the upper watersheds of Big Mack's Creek and Little Laurel Creek. Little Mack's Creek, Maple Branch, Chimney Branch, White Oak Camp Branch, Puncheon Camp Branch and Bark Camp Branch feed the two major creeks. Two lakes, one at Camp Powhatan (4.36 acres) and one at Camp Ottari (7.66 acres) provide for swimming, limited boating, and fishing. Big Mack's Creek is a native trout stream. Several intermittent streams and springs exist.

The topography of the Reservation consists primarily of steep mountain slopes interspersed with patches of level or near level ground along the water courses and on mountain tops. The elevation ranges from 1,900 feet along Big Mack's Creek at the northwest edge of the tract to the 3,348 foot Bullard Knob on the southern boundary. Eighteen "peaks" adorn the tract ranging from the 2,530 foot Point Camp Peak to Bullard Knob (3,348 feet).

Geologically, the Reservation lies in the Blue Ridge province. The base rocks consist primarily of sandstone, quartzite and acid shales. Five primary soil types make up most of the Reservation terrestrial surface.

B. History

1. Ownership

The Reservation, previously known as the Old Radford Iron Company Tract, was purchased by the Blue Ridge Mountains Council, Boy Scouts of America in 1957 from Radford College (now Radford University) for \$56,000. Radford College had assumed ownership of the property by donation from the previous owner, Walter Wood (The Wood family had owned the Radford Iron Company).

2. Resource, Use and Events

Use of the area by American Indians consisted primarily of seasonal hunting and fishing activities. No permanent villages are known to have existed on the Reservation.

In the late 1700s and early and mid 1800s use of the area was primarily for subsistence farms. Little impact of this use remains. By the late 1800s and into the early 1900s the production of iron at the furnace located in the lower Mack's Creek area was the predominant use. Much of the forest was used to make charcoal for the furnace. A number of the "charcoal pits" are still present on the area. During this time, woods fires frequently erupted from the charcoal pits causing extensive burns over much of the area. This fire regime resulted in the forest cover on the reservation today.

Another event that significantly impacted the forest and wildlife of the area was the emergence of Chestnut Blight. Chestnut was a dominate tree species over much of the area and provided a major food source for native wildlife. Its demise brought significant changes in the forest environment which continues to this day.

C. Resource Inventory

Steps are underway to develop a comprehensive inventory of the natural and cultural resources present on the Reservation. This will be accomplished by the Council Conservation Committee task groups, special events such as Resource Rambles (BioBlitz), and special arrangements with college and university faculty and environmental organizations.

1. Cultural Resources

a) Historic and Archeological Resources

(1) Historic Resources

Several historic resources are present on the Reservation. Notable among them are:

- (a) Charcoal Kilns
- (b) Iron Furnace
- (c) King Ranch Area

- (d) Puncheon Camp
- (e) Mountain View Cabin
- (f) Puncheon Sawmill
- (g) Logging Camp

Efforts are underway to describe these sites as well as identify others that have historic value.

2. Archeological Resources

Little is currently known about archaeological sites that may be present on the Reservation. Efforts are underway to secure an archaeological survey of the Reservation.

3. Natural Resources

a) Vegetation

In general, eight tree species or groups tend to dominate the Reservation

- (a) Red oak group (*Northern red oak, black oak, scarlet oak, bear oak*)
- (b) White oak group (*White oak, chestnut oak*)
- (c) Yellow poplar (*Liriodendron tulipifera*)
- (d) White pine (*Pinus strobus*)
- (e) Red maple (*Acer rubrum*)
- (f) Yellow pine group (*Virginia pine, pitch pine, table mountain pine*)
- (g) Hickory group (*Carya sp.*)

The understory vegetation present on the Reservation is typical of the region. Huckleberry (*Gaylusscia spp.*), galax (*Galax urceolata*), blackberry and raspberry (*Rubus spp.*), and rhododendron (*Rhododendron albiflorum*) are principle species.

Efforts are underway to develop a comprehensive inventory of vegetation existing on the Reservation. (Appendices D-1, D-2, and D-3)

b) Wildlife

The Virginia Department of Game and inland Fisheries identifies 451 species of animals that live in the vicinity of the Reservation. These include 53 mammals, 174 birds, 20 reptiles, 30 amphibians, 56 fish and 124 invertebrates. Studies are currently underway to develop a more definitive list of species known to reside on the Reservation or are frequent transients.

Efforts are underway to inventory the wildlife existing on the reservation. (Appendices D-6, D-7, D-8, D-9, and D-10)

c) Soils

The soils present on the Reservation consist primarily of Lily–Ramsay–Berks–Gilpin soils. These soils are moderately deep or shallow, moderately steep to very steep soils that have a loamy subsoil; formed in material weathered from shale, quartzite and phyllite. (Appendix D–16)

III Goals and Objectives

The principle goals of this plan are:

- To create/preserve and maintain a quality environment within the Reservation.
- To provide quality learning, recreation and character building experiences for Scouts and other users in accordance with Boy Scouts of America policy and procedures.

A. Management Objectives

1. Vegetation

- a) Maintain/enhance native vegetation throughout the Reservation.
- b) Eradicate exotic and feral vegetation where such vegetation presents a threat to native species or Reservation users.
- c) Re-establish native vegetation regimes where appropriate.
- d) Re-establish historic native vegetation regimes in selected areas.
- e) Educate Scouts, Scouters and other users regarding the proper behavior when in contact with the Reservation vegetation.

2. Wildlife

- a) Maintain/stabilize/enhance existing native wildlife species.
- b) Manage native and exotic/feral nuisance species to minimize their impact on native ecosystems and Reservation users.
- c) Eradicate exotic species of concern to the health and safety of native ecosystems and/or Reservation users.
- d) Educate Scouts, Scouters and other users regarding proper behavior during encounters with Reservation wildlife and appropriate means to enhance wildlife habitat.

3. Soils

- a) Stabilize to prevent erosion and minimize negative impact in heavy use areas.
- b) Enrich to enhance soil usefulness as a medium for growing desired vegetation species.
- c) Educate Scouts, Scouters and other users regarding soils, soil uses, and soil conservation.

4. Water

- a) Maintain high quality water in all Reservation waterways and in Powhatan and Ottari Lakes.
- b) Maintain a vegetative buffer riparian zone adjacent to all waterways.
- c) Educate Scouts, Scouters, and other users regarding the proper behavior when using water resources.

5. Air Quality

- a) Maintain high air quality throughout the Reservation.
- b) Manage air pollutant sources (road dust, campfire smoke, etc) to minimize their impact on the Reservation's air quality.

6. Archeological/Historic Resources

- a) Protect and prevent deterioration of existing resources.
- b) Enhance selected resources through interpretation, rehabilitation, restoration, or reconstruction.
- c) Educate Scouts, Scouters and other users regarding proper behavior during encounters with archaeological and historical resources.

7. Aesthetic/Philosophic Resources

- a) Preserve/protect the wildland character of areas so designated.
- b) Implement management activities in such a manner as to enhance the landscape/scenery value of the Reservation.
- c) Facilitate the removal of collectibles to assure minimal negative impact on the Reservation environment.

B. Management Policies

To ensure the goals and objectives set forth in this plan are met, the policies related to resource management must be strictly enforced. Failure to do so will undermine efforts to establish/maintain the level of desired environmental and program quality.

Scouts, Scouters and other users of the Blue Ridge Scout Reservation are expected to take extraordinary measures to protect the Reservation's natural and cultural resources.

All users are prohibited from collection and removal of plants and wildlife from the Reservation except by permit or other authorization provided within this plan.

1. Native Species Introduction

It shall be the policy of the Blue Ridge Scout Reservation that only native species be introduced on the Blue Ridge Scout Reservation unless compelling circumstances make it appropriate to introduce non-native species.

2. Exotic/feral species management

It is the policy of the Blue Ridge Mountains Council to eradicate, prevent the spread of and prohibit the introduction of exotic species on the Blue Ridge Scout Reservation unless there are compelling reasons to do otherwise.

An ongoing survey will identify the type and location of exotic/feral species inhabiting the Blue Ridge Scout Reservation. Once identified and located, steps will be taken to ascertain their potential impact on ecosystems and on users. In the event the analysis shows a significant negative impact is or will occur if no action is taken, a resource project plan (see appendix) will be devised to control or eradicate the organism.

3. Resource Utilization/Harvest

a) General Policy

- (1) It is the policy of the Blue Ridge Mountains Council to permit the use/harvest of specifically identified resources from the Blue Ridge Scout Reservation. The gathering of any resource not specifically identified may be permitted under a special permit. Species identified as rare or endangered shall not be used/harvested from the Blue Ridge Scout Reservation.
- (2) This policy shall not restrict the gathering of an individual plant or parts thereof for education purposes by Scouts or Scouters unless specifically prohibited (i.e. a rare or endangered species).
- (3) All use/harvest of resources on the Blue Ridge Scout Reservation shall be accomplished in such a manner as to reduce/eliminate any negative impact on the habitat/location of the resource.
- (4) Scouts and Scouters shall have priority on the use/harvest of Blue Ridge Scout Reservation resources.

b) Timber/Pulp

The harvest of timber/pulp resources will be allowed when such action is deemed to enhance the quality and health of the ecosystems within and adjacent to the Blue Ridge Scout Reservation. All such harvest shall be accomplished under a harvest plan prepared by the forestry task group and shall utilize sound sustainable forestry practices and adhere to the Virginia Best Management Practices to reduce impact on the ecosystem and surrounding areas.

c) Firewood

Scouts and other user groups are prohibited from bringing firewood on to the reservation (due to the potential to introduce tree pest and disease species).

The harvest of down and dead wood for firewood shall be permitted by special permit only.

All such harvest shall be accomplished under a harvest plan prepared by the Forestry task group and shall adhere to Virginia Best Management Practices to reduce negative impact on the ecosystem and surrounding areas.

The gathering of dead and down wood for camp or camp fires on the Blue Ridge Scout Reservation by Scouts and other users is permitted unless specifically prohibited.

d) Edibles

The harvest of edible vegetation products by Scouts and Scouters for their consumption while using or in residence on the Blue Ridge Scout Reservation is permissible unless specifically prohibited. The term edible generally refers to fruits, berries, nuts, greens, roots, and mushrooms growing “wild” on the reservation.

Such harvest shall be accomplished under appropriate guidelines to avoid undue negative impact on the edible resource or its habitat.

e) Decoratives

The gathering of decoratives (ferns, club moss, mosses, grape vines, wildflower seed pods, Christmas greens, dead and down wood, weathered stumps, Galax, etc) shall be permitted only under a special permit except when such gathering is for limited use on the Blue Ridge Scout Reservation.

The gathering of decoratives shall be accomplished so as to avoid undue negative impact on the resource or its habitat/location.

f) Medicinals

The gathering of medicinal plants (see Appendix D-13 for a list of plants considered as medicinals under this policy) shall be permitted only under a special permit.

The gathering of medicinals shall be accomplished under strict guidelines as specified in the permit and in such a manner as to minimize negative impact on the resource or its habitat/location.

g) Native Plants

The gathering of native plants, other than those specifically mentioned here in, shall require a special permit. Such harvest shall be accomplished under guidelines designed to reduce undue negative impact on the plant or its habitat.

h) Specialty Items

The gathering of any other plant material not previously identified shall be permitted.

Care should be exercised to assure minimum negative impact on the plant species and its habitat/location.

i) Wildlife

The hunting and trapping of wildlife shall be permitted only under a special permit on specifically designated areas and in accordance with the rules and regulations of the Virginia Department of Game and Inland Fisheries.

Fishing shall be permitted within specifically designated waters in accordance with the rules and regulations of the Virginia Department of Game and Inland Fisheries.

The trapping of nuisance species within the Reservation is permitted under a special permit by authorized individuals.

Nuisance rodents or other wildlife deemed a hazard to the health of Reservation users may be trapped or otherwise eliminated and disposed of in accordance with health and safety guidelines.

j) Minerals

(1) The extraction of rocks and mineral resources shall be permitted only under a special permit, which will specify:

- (a) The material and quantity to be mined/removed.
- (b) The specific location where mining/removal will be permitted.
- (c) Any specific requirements to be imposed on the mining/removal operation.

(2) The collection of small individual samples of rocks and minerals by Scouts as a part of advancement requirements or other approved Scouting activities is permitted.

(3) The collection of rocks and minerals, as well as the large scale extraction of mineral resources shall be accomplished so as to minimize negative environmental impact.

k) Archaeological/Historic Resources

The collection of archaeological/historic resources is permitted only under a special permit.

Scouts and other users of the Blue Ridge Scout Reservation should avoid removing or otherwise altering any archaeological or historic resource.

l) Use of Pesticides

The use of pesticides or other chemicals for the control of undesirable species of animals or plants shall be discouraged except where such use is deemed essential by council officials for the health and safety of Reservation users or the natural environment.

Any use of such agents shall be in accordance with health and safety guidelines.

IV. Management Approach

A. Management Zones

The Blue Ridge Scout Reservation shall be divided into seven (7) management zones as soon as practical following completion of the resource inventory and an analysis of the management needs of the area.

The management zones are intended to provide over-all direction for the best use of each zone. It is understood, however, that unforeseen, natural and man-caused events may necessitate these zones or portions thereof be altered.

The seven management zones include:

1. Administrative Areas Zone (symbol: A) (Appendix B-1)

- a) Description: Includes maintenance, storage and ranger residence areas, paved or improved roads (primarily for vehicular traffic) and their buffer areas, and other areas designated as “administrative”.

Zone A-1: Main reservation storage and maintenance area and ranger residence

Zone A-2: Camp Powhatan road and buffer

Zone A-3: Camp Ottari maintenance area and ranger residence

Zone A-4: Camp Ottari road and buffer

Zone A-5: Communications Tower and Access Road

Zone A-6: Powerline R/W

- b) Directive: Modification of the area to facilitate the area’s administrative purpose is permitted. Care should be exercised to keep negative environmental impact to the minimum necessary during development activities and operational use.

- c) Monitoring Recommendations:

A process of continuous monitoring of environmental impact within administration areas shall be implemented to assure the timely identification of problems or potential problems and rapid action to correct or mitigate the impact.

- d) Management Recommendations:

Administrative areas shall be managed to create and or maintain:

- (1) A safe environment for users
- (2) A functional environment commensurate with the administrative functions assigned to the site.
- (3) To the extent possible, an appearance that blends with the natural environment.

2. Developed Camp Zone (Symbol: D) (Appendix B-2)

- a) Description: Includes the areas used for developed camping including adjacent program areas and other support areas.

D-1: Camp Powhatan Area

D-2: Camp Ottari Area

D-3: “King Ranch” Area

D-4: Huff Farm Area

D-5: Mountain Man Area

- b) Directive: Modification of the environment required to support the camp mission and assure camper safety is permitted. Care shall be exercised to keep negative environmental impact to a minimum during development activities and operational use.

- c) **Monitoring Recommendations:**
A process of continuous monitoring of environmental impact shall be implemented to assure the timely identification of problems or potential problems and rapid action during periods of active camp use to correct or mitigate the impact on safety to camp users.
- d) **Management Recommendations:**
Developed camp areas shall be managed to assure:
 - (1) A safe environment for users
 - (2) A functional environment commensurate with this program's function assigned to the site.
 - (3) To the extent possible, an appearance that blends with the natural environment.

3. Backcountry Program Zone (Symbol: B) (Appendix B-3)

- a) **Description:** Includes backcountry trails and their corridors, backcountry outposts, and backcountry program areas and their buffer areas.
- b) **Directive:** Modification of the natural environment for backcountry trails, outposts and program areas is permitted only to the extent necessary to facilitate their designated use and the safety of their users. Any development within this zone must blend with the natural environment and cause minimum negative impact on the environment and visual character of the area.
- c) **Monitoring Recommendations:**
A process of periodic monitoring shall be implemented to assure identification of problems or potential problems and actions to correct or mitigate the impact.
- d) **Management Recommendations:**
Backcountry program areas will be managed to create or maintain:
 - (1) A safe environment for users
 - (2) A functional environment commensurate with the program functions assigned.
 - (3) An appearance that blends with the natural environment.

4. Resource Zone (Symbol: R) (Appendix B-4)

- a) **Description:** Includes those areas of the Reservation that are designated for wildlife or forest management activities such as hunting, trapping, timber and non-timber forest products harvesting, and similar extractive activities.
- b) **Directive:** Modification commensurate with the resource management objectives of the activity is permitted. Care will be exercised to assure minimum negative impact during resource management activities.
- c) **Monitoring Recommendations:**
A process of periodic monitoring shall be established to gain and maintain an understanding of the ecological situation within the area and any developing problems in need of action.
- d) **Management Recommendations:**
The resource zone shall be managed to:
 - (1) Maximize wildlife and forest values within the context of natural ecological capacity.
 - (2) Create and maintain a safe environment for users.

5. Backcountry Conservation Zone (Symbol: C) (Appendix B-5)

- a) **Description:** Includes those areas of the Reservation exhibiting a natural regime that are not a part of any other zone and where only latent evidence of human use remains.
- b) **Directive:** Only ecological changes are permitted. Activity use is restricted to those of a "Leave No Trace" nature.
- c) **Monitoring Recommendations:**
A process of periodic monitoring shall be established to gain and maintain an understanding of the ecological situation and any problems in need of action.

- d) Management Recommendations: Management within the backcountry conservation zones shall be oriented to the maintenance of natural processes. Overt management activities shall be restricted to those deemed essential to:
 - (1) Maintain/enhance habitat for a threatened, rare or endangered species.
 - (2) Recreate an historic ecosystem that was native to the area.

6. Riparian Zone (Symbol: S) (Appendix B-6)

- a) Description: Includes the permanent and primary wet intermittent streams, and springs and their terrestrial buffers lying outside zones A and D.
The primary ecosystems include:
 - S-1 Big Mack's Creek
 - S-1.1 Maple Branch
 - S-1.2 Chimney branch
 - S-1.3 Little Mack's Creek
 - S-1.4 Bark Camp Branch
 - S-1.5 Puncheon Camp Branch
 - S-2 Burke's Run
 - S-2.1 White Oak Camp Branch
 - S-3 Little Laurel Creek
 - S-4 Big Laurel Creek
 - S-5 Little River
- b) Directive: Care shall be taken to assure the maintenance and enhancement of high quality water within the streams and the maintenance of their aquatic integrity; stream buffer areas shall adhere to DOF Guidelines (Appendix K-2) or exceed such guidelines when conditions require.
- c) Monitoring Recommendations:
A process of periodic monitoring shall be established to gain and maintain an understanding of the ecological situation and problems in need of action.
- d) Management Recommendations:
The Riparian Zone shall be managed to:
 - (1) Maintain high water quality within the riparian streams.
 - (2) Maintain vegetated corridors along streams.
 - (3) Maintain protected stream crossings for trails and roads to assure bank and stream bottom stabilization.
 - (4) Provide and maintain stream bank stabilization in highly erodible areas.

7. Inviolate Zone (Zone I) (Appendix B-7)

- a) Description: Includes areas of the Reservation that contain a population of rare or endangered species; an ecosystem of special concern or areas in need of special protection due to the resources present or safety of the Reservation users.
- b) Directive: Areas zoned I shall be "off limits" to any use except for that deemed essential to maintain the integrity of the area.
- c) Monitoring Recommendations: A monitoring program shall be established to assure regular periodic surveillance of the areas. The program will monitor evidence of unauthorized intrusion into the area, the status of the special resource(s) and any other specified information.
- d) Management Recommendations: Management of these areas shall be oriented to assure the continuance or enhancement of conditions conducive to the retention and enhancement of the special resource.

B. Baseline Reference

Studies are underway or in the planning stage to ascertain a comprehensive baseline reference of the Reservation's natural and cultural resources. It is anticipated the baseline studies will be completed by 2010.

C. Analysis of existing conditions versus Baseline Reference

An analysis of changes in the Reservation's natural and cultural resources will occur on a regular basis as baseline reference data and monitoring of current conditions data become available.

These analyses will be used to ascertain the need for changes in the management of the Reservation's natural and/or cultural resources.

D. Resource Monitoring Program

An ongoing monitoring program will be established to initially establish baseline data with follow-up to ascertain the condition of the Reservations' areas and ecosystems and the direction of change. (Appendix C)

The overall Reservation monitoring program will consist of established permanent plots and/or sample sites throughout the Reservation and along its streams.

The monitoring program will measure:

1. Forest composition and health
2. Wildlife presence, abundance and health
3. Soil conditions
4. Water quality
5. Trail conditions
6. Camp and program area conditions

V. Management and Restoration of Healthy Ecosystems

A. Causes of Ecosystem Degradation

1. Air Pollution

Air pollutants within the Reservation are primarily derived from campfire smoke, vehicle exhaust and dust (primarily due to vehicular traffic).

2. Water Pollution

The principle source of water pollution within the Reservation is soil erosion. Minor pollution occurs from human wastes and human activities in or adjacent to surface water.

3. Soil Erosion

Due to the nature of soil and the topography within the Reservation, soil erosion is a primary form of environmental degradation and a principal water pollutant. The loss of vegetation cover due to human use activities exacerbates this problem.

4. Noise

The principle source of noise within the Reservation results from human use that includes loud vocalizations and the use of motorized equipment.

5. Exotic and Feral Organisms

The principle exotic and feral organisms impacting the Reservation are coyote (coy dog) and tree-of-heaven (*Ailanthus altissima*)

6. Pest Organisms

The principle pest organisms that provide significant environmental degradation or impact user safety include the southern pine beetle, the hemlock woolly adelgid and gypsy moth.

7. Aesthetic Degradation

The principle forms of aesthetic degradation of the Reservation include litter, soil erosion, and non-blending camp equipment and structures.

8. Wildfire

The threat of wildfire is generally considered to be a significant potential source of environmental degradation. The nature of the Reservation woodlands and topography provides significant susceptibility to wildfire.

9. Resource Extraction

Resource extraction necessarily involves a degree of environmental degradation. Depending upon the nature of the extraction, impact may be minor or severe.

10. Human Use

The principle causes of environmental degradation due to human use of the Reservation includes vandalism, litter, solid wastes, human and animal wastes, encroachments, user safety measures, user satisfaction measures, Reservation operations activities and wildlife harassment.

11. Community Concerns

The principle causes of environmental degradation resulting from community influences include adjacent landowner activities, encroachment and poaching (wildlife and plants).

B. Threshold of Concern

Threshold of concern (TOC) is a process by which a benchmark is established to mark the point at which concern about a particular resource or value will lead to management action.

A TOC shall be established in relation to each of the identified causes of environmental degradation to determine when management action may be appropriate to mitigate the impact. (Appendix A-4)

C. Measures to Reduce Environmental Degradation

1. Air Pollution

a) Preparation

- (1) All users shall be made aware of vehicle speed limits while using dirt surface roads.
- (2) All users shall be made aware of the open fire policies regarding smoke production.
- (3) All users shall be made aware of the policies regarding vehicle use within the Reservation.

b) Monitoring

Leaders and staff shall monitor user behavior to assure compliance with policies and procedures that prevent air pollution (Appendix C-4).

c) Suppression

- (1) The speed limit for vehicles on dirt surface roads shall be set at 15 mph or lower to reduce dust.
- (2) Open fires shall be restricted to meal preparation time and for evening campfire, or other program activities. Users shall use small fires sufficient for the fire purpose and shall use fuel commensurate with reduced smoke. Fires shall be totally extinguished following their intended purpose.
- (3) Vehicular travel within the Reservation shall be restricted to essential movement to facilitate the proper operation of the camp and program activities. Maximum use of walking and authorized non-polluting vehicles shall be encouraged.

2. Water Pollution

a) Preparation

All users shall be cautioned regarding behavior and/or activities that may cause the degradation of water resources within the Reservation, in particular those relating to the use of stream riparian and lakeshore zones and stream crossings located on trails and roads.

b) Monitoring

A process of periodic monitoring of the streams and lakes within the Reservation shall be established in accordance with Appendix C-3.

c) Suppression

- (1) Activities within stream riparian zones and lakeshores shall be restricted to those deemed essential for program use.
- (2) Stream and lakeshore areas frequently used for program activities shall be "hardened" to accommodate such use in an effort to reduce soil erosion.
- (3) Leave no trace guidelines regarding waste disposal in relation to streams and lakes shall be strictly enforced.

3. Soil Erosion

- a) Preparation
All users shall be cautioned regarding behavior and/or activities that may cause soil erosion within the Reservation.
- b) Monitoring
A process of continuous monitoring of areas prone to soil erosion shall be established to identify existing and potential erosion concerns (Appendix C-2).
- c) Suppression
 - (1) Efforts shall be undertaken to stabilize areas within the Reservation prone to soil erosion.
 - (2) Areas prone to severe soil erosion shall be placed “off limits” for camp and program activities unless suitably stabilized.

4. Noise

- a) Preparation
All users shall be cautioned regarding behavior and/or activities that generate excessive noise within the Reservation.
- b) Monitoring
A process of continuous monitoring shall be established to identify any existing and potential sources of excessive noise (Appendix C-4).
- c) Suppression
 - (1) The use of tools, machinery and noise producing vehicles that emit a decibel level in excess of 100 shall be prohibited except in circumstances where the health and safety of users would be compromised (Appendix K-3).
 - (2) Trail users shall be cautioned regarding loud talking and other behavior that generates excessive noise while on the trails or in campsites or program areas.

5. Exotic and Feral Organisms

- a) Preparation
All users shall be made aware of the presence of exotic and feral organisms present on the Reservation, particularly any that may impact the health and safety of the users.
- b) Monitoring
A process of continuous monitoring shall be established to identify and locate the presence of exotic and feral organisms on the Reservation (Appendix C-2 and C-3).
- c) Suppression
Efforts to prevent the introduction of and action to eliminate or mitigate the impact of feral and exotic organisms on the Reservation shall be taken in accordance with the feral and exotic organisms plans (Appendix I).

6. Pest Organisms

- a) Preparation
All users shall be made aware of pest organisms present on the Reservation, particularly those of a nuisance nature or those providing a threat to the health and safety of the users.
- b) Monitoring
A process of continuous monitoring shall be established to identify and locate pest organisms on the Reservation (Appendix C-2 and C-3).
- c) Suppression
 - (1) Efforts shall be undertaken to reduce pest organisms on the Reservation in accordance with the pest management plans (Appendix I)
 - (2) To reduce user encounters with nuisance and harmful pests while on the Reservation, pest repellents and other protective measures shall be recommended (Appendix I).

7. Aesthetic Degradation

- a) Preparation
All users shall be made aware of actions that may cause the aesthetic degradation of the Reservation and means to prevent or mitigate their impact.
- b) Monitoring
A process of continuous monitoring shall be established to prevent or quickly correct actions resulting in the aesthetic degradation of the Reservation (Appendix N).
- c) Suppression
 - (1) Efforts shall be undertaken to provide an adequate number of trash containers strategically located throughout camp and program areas and establish a pick up schedule commensurate with usage (Appendix N).
 - (2) Efforts will be made to maintain travel corridors, camps and program areas within the Reservation free of unsightly and offensive visual intrusions.
 - (3) Each camp and program area will be supplied with “Do Not Litter” signs for posting in conspicuous locations.
 - (4) Each user group will be encouraged to “police” the area(s) used to clean up trash or other debris located thereon.

8. Wildfire

- a) Preparation
All users and staff shall be made aware of the current fire danger rating on the Reservation and their role should a wildfire ignite within the Reservation or adjacent property.
- b) Monitoring
A process of continuous monitoring of fire conditions within the Reservation shall be established in accordance with the Fire Management Plan (Appendix H).
- c) Suppression
 - (1) Wildfires on the Reservation shall be suppressed as rapidly and as completely as possible following discovery under the provisions of the Wildfire Management Plan (Appendix–H).
 - (2) A fire danger sign shall be installed at the Reservation entry points to Camp Powhatan and Ottari and, during the summer camp season, at a prominent location at each camp’s dining facility to notify users of the current fire danger rating.
 - (3) maximum use of stoves for cooking shall be encouraged by groups using the Reservation.
 - (4) Open campfires shall be restricted to designated campfire sites except when used as a part of a wilderness/backcountry cooking or other program activity.
 - (5) The smoking of tobacco products is restricted to designated smoking areas within the developed camps and program areas. Smoking is not permitted in backcountry areas.
 - (6) “Be Careful With Fire” signs shall be posted prominently in camp and program areas.

9. Resource Extraction

- a) Preparation
Users of the Reservation shall be informed of any ongoing resource extraction activities that they may encounter during their visit to the Reservation.
- b) Monitoring
A process of periodic monitoring shall be established during resource extraction activities on the Reservation as identified in the resource extraction management plans (Appendix–M).
- c) Suppression
Any potential environmental degradation resulting from resource extraction activities shall be identified with required measures to be taken to eliminate or mitigate their impact in the Harvest/Extraction Plan prepared under the Resource Extraction Management Plan (Appendix–M).

10. Human Use

- a) Preparation
All users will be educated to recognize their potential impact on the environment and measures they may take to reduce negative impact.
 - (1) Bear Aware Program
 - (2) Leave No Trace Program
 - (3) Environmental Briefings (see Appendix E-6.3).
- b) Monitoring
Leaders and staff shall monitor user behavior to assure compliance with policies and procedures that prevent environmental degradation.
- c) Suppression
 - (1) Policies (rules and regulations) will be established to discourage inappropriate user behavior that could lead to environmental degradation.
 - (2) Areas of special environmental concern will be set off and marked as inviolate zones to discourage use (Appendix B-7).
 - (3) A permit system shall be implemented to restrict use of certain areas or harvest of resources (Appendix E-1).

11. Community Concerns

The following measures shall be undertaken to reduce environmental degradation due to community concerns.

- a) Preparation
Establish good relations with scout leaders, adjoining landowners and others having a relationship with Reservation resources.
- b) Monitoring
A process of continuous monitoring of community concerns shall be established to foster appropriate community relations.
- c) Suppression
 - (1) Concerns expressed by scout leaders, adjoining landowners or others who use the Reservation for non-scout related activities shall be addressed in a timely manner by the BSA official who has the authority to do so. Concerns that relate to a resource management on conservation matters shall be referred to the Council Conservation Committee for information and, if appropriate, a recommendation for solution.
 - (2) Actions and/or activities undertaken on the Reservation that may generate community concerns shall be addressed prior to implementation through notification of individuals or groups likely to be concerned via mail, meetings, and mass media.

D. Environmental Impact Analysis

Any project undertaken on the Blue Ridge Scout Reservation which has the potential to impact the existing environment requires the preparation of an Environmental Impact Analysis (EIA).

Major development projects, following approval by the BRMC Properties Committee shall be referred to the Council Conservation Committee for review and EIA preparation.

Minor projects which do not need BRMC Properties Committee approval (e.g. trail work, "Conservation" projects, "maintenance" projects, etc.) shall be analyzed for environmental impact by informal or formal means as described in Appendix E-3, EIA Guidelines. Such analysis shall be completed prior to the initiation of any on-site actions required by the project.

If the EIA shows any area of concern (i.e., negative impact), the project shall be modified to eliminate or mitigate the concern.

If the EIA shows any long term negative impact, the project shall be placed on hold until reviewed by the Council Conservation Committee to eliminate or mitigate the concern.

VI. Appendices

- A Management Schedules/Threshold of Concern
- B Management Zones
- C Monitoring Guidelines
- D Resource Inventory
- E Conservation Needs and Projects
- F Trail Plan
- G Campsite Plan
- H Fire MP
- I Pest MPs
- J Feral and Exotic Organisms MPs
- K Pollution Abatement MPs
- L Soil Resources MP
- M Resource Extraction MPs
- N Aesthetic Improvement MPs
- O Cultural Resources MPs
- P Roads
- Q Best Conservation Practices
- R Wildlife/Plants of Special Interest

Appendix A Management Schedules/Threshold of Concern

- A-1 Matrix of Management Activities
- A-2 Matrix of Conservation Activities
- A-3 Threshold of Concern

Appendix B Management Zones

- B-1 Administrative Areas Zone
- B-2 Developed Camp Zone
- B-3 Backcountry Zone
- B-4 Resource Zone
- B-5 Backcountry Conservation Zone
- B-6 Riparian Zone
- B-7 Inviolate Zone

Appendix C Monitoring Guidelines

- C-1 General
- C-2 Terrestrial
- C-3 Aquatic
- C-4 Aerial
- C-5 Cultural

Appendix D Resource Inventory

- D-1 Tree and Shrub Species
- D-2 Herbaceous Species
- D-3 Ferns, Mosses, Lycopods
- D-4 Lichens
- D-5 Fungi
- D-6 Mammals
- D-7 Birds
- D-8 Reptiles
- D-9 Amphibians

- D-10 Fish
- D-11 Invertebrates
- D-12 Species of Special Conservation Concern; Rare and Endangered Species
- D-13 Medicinal Plants
- D-14 Hazard Plants and Animals
- D-15 Invasive Species
- D-16 Soils
- D-17 Rocks and Minerals
- D-18 Cultural Resources

Appendix E—Conservation Needs and Projects

- E-1 Special Permits
- E-2 Resource Project Plans
- E-3 Environmental Impact Analysis Guidelines
- E-4 Environmental Area Adoption
- E-5 Conservation Projects
- E-6 Educational Activities and Materials

Appendix E-1 Special Permits

Individuals or groups desirous of using the Reservation, or parts thereof, or of harvesting a resource from the Reservation must secure a special permit unless the use or harvesting is specifically permitted by Reservation policy.

To request a special permit, a letter outlining the details of the desired use or harvest activity shall be sent to the Council Service Center for processing.

The Council Service Center will forward the request to the appropriate Council Executives or Council Committee(s) for review and recommendations.

In the event the request lies within the parameters of existing policy and the review by council personnel is positive, the Council Service Center shall issue the permit.

In the event the request lies within the parameters of council policy, but is not recommended by council reviewers, the issue shall be forwarded to the Council Scout Executive for review and approval/disapproval.

In the event the request lies outside the parameters of council policy and is not recommended by the council reviews, the permit request shall be denied.

The procedures currently in effect for the reservation of areas and facilities on the reservation or for the issuance of hunting and fishing permits will remain in effect.

Appendix E-2. Resource Project Plans (RPP)

Management activities taken to enhance the health, safety or value of Reservation resources shall be initially proposed as a Reservation project plan. The plan shall indicate:

1. Identification and location of resource need and problem.
2. Recommended measure(s) to deal with the need or problem.
3. Results of an EIA regarding the project (See Appendix E-3). Note: Append EIA to Project Plan.
4. Resources needed to implement the recommended measures to include supplies, tools, other equipment, manpower and costs.
5. A time line identifying the proposed schedule of work and completion date.
6. Personnel to be used to accomplish the project and individual(s) who will supervise the project.
7. Name, address, phone numbers and email address of the project coordinator.

The RPP shall be prepared in writing and submitted to the designated person. Following approval the RPP shall be returned to the initiator for implementation.

Upon completion of the project, the project coordinator shall notify the Council liaison for the project (Ranger, Council Professional, Conservation Committee Member) so that appropriate recognition may be provided.

Appendix E–3 Environmental Impact Analysis Guidelines

A. Informal EIA

An informal EIA is acceptable when “minor” projects are considered to present only minimal negative impact to the environment and where a significant positive impact is anticipated.

The informal EIA consists of a written statement (a paragraph or two) acknowledging a review of the project to ascertain potential negative environmental impact and a statement of the positive results anticipated has been accomplished. The informal EIA may be accomplished by a knowledgeable adult or junior leader who is providing leadership for the project.

The informal EIA statement shall be attached to the Resource Project Plan (Appendix E–2).

B. Formal EIA

A formal EIA shall be required whenever a project is felt to present significant negative impact on the environment or when an informal EIA tends to show potential significant negative environmental impact.

The formal EIA consists of an analysis matrix and a statement of findings.

An analysis matrix (see figure E–3.1 below) shall be prepared to show:

1. The name of the project
2. A description of the project
3. Who will complete the project
4. Who prepared the EIA
5. The date of the EIA
6. A matrix showing interaction blocks for resources and project actions.
7. The type of impact on the resource anticipated during the construction/activity phase and long range.
8. An analysis of the impact
9. A statement regarding the mitigation of any negative impacts.

Impacts shall be identified as either + (positive impact) or – (negative). If no impact is anticipated, use 0. Initial impact anticipated to resources during project implementation shall be located in the upper left of the interaction box; anticipated long-term impact in the lower right corner (as shown in figure E–3.1).

For some projects, it may be important to include impacts anticipated to specific resources rather than simply to groups (e.g. vegetation or wildlife). If a significant impact is expected to occur relating to a specific type of vegetation or wildlife (e.g. a rare or endangered species, species of special concern, or otherwise of special interest) then an interaction block should show the EIA for that specific resource (See Table E–3.1).

If the project is anticipated to impact aesthetic or cultural (archeological or historic) resources, then an interaction box (or boxes) should be included to identify the anticipated impact.

A copy of the EIA should be attached to the Resource Project Plan (Appendix E–2).

Figure E-3.1: Sample EIA

EIA—Trail crossing of Big Mack's Creek

Project: Stabilize banks of BMC and placement of stepping stones on creek bottom.

Project to be completed by: OA

EIA prepared by: R.J. Snarf **Date:** 2/15/07











Resource	Project Actions		Comments
	Rock Ledge on Creek Banks	Stepping Stones in Creek	
Vegetation			No discernible impact
Wildlife			No discernible impact initially, fish and aquatic life improved after
Soils			Soil erosion at site during construction. Soil stabilization after construction
Water			Water quality deterioration during construction. Water quality improved after construction
Air			No discernible impact
Analysis: While there will be initial negative impact on the soils and water quality, the long term impact will be positive for soils, water quality and wildlife.			
Mitigation of Negative Impacts: Care shall be exercised to minimize initial impact on the soils and water quality during construction.			

Figure E-3.1

Potential Resource Components and Project Activities for the EIA Matrix	
A. Resource Components	
Soils	<ul style="list-style-type: none"> • Surface Soils • Soil Quality • Soil Erodibility • Land Form • Unique Soil Resources • Unique Physical Feature
Water	<ul style="list-style-type: none"> • Surface Water • Subsurface Water • Water Quality • Water Temperature
Air	<ul style="list-style-type: none"> • Air Quality (particulates , gases) • Micro/Macro Climate • Air Temperature
Vegetation	<ul style="list-style-type: none"> • Trees • Shrubs • Herbaceous Plants • Aquatic Plants • Rare/Endangered Plants
Wildlife	<ul style="list-style-type: none"> • Land Animals • Birds • Fish and Shellfish • Benthic Organisms • Insects/arthropods • Microfauna • Rare/Endangered Species
Aesthetics	<ul style="list-style-type: none"> • Scenic Views (immediate, long range) • Wilderness/Backcountry Qualities • Unique Landforms or Physical Features • Rare/Endangered Species
Cultural	<ul style="list-style-type: none"> • Historic • Archeological
B. Project Actions	
	<ul style="list-style-type: none"> • Introduction of exotic plants or animals • Modification of habitat • Alteration of ground cover • Alteration of drainage • Modification of stream flow or control • Burning of site or debris • Surface alteration or paving • Excessive noise generation • Landscaping activities • Road/trail construction • Structure construction activities • Cut and fill activities • Erosion control activities • Terracing • Reforestation activities • Wildlife habitat modification • Wildlife stocking activities • Landscaping activities • Fertilization • Chemical pest control • Weed control

Appendix E–4 Environmental Area Adoption

Scout units will be encouraged to “adopt” environmental areas within the Reservation. Adoption commits a unit to monitor and maintain the area in accordance with the adoption agreement between the unit and the Blue Ridge Scout Reservation.

Units may “adopt”:

1. Trails or trail segments
2. Campsites
3. Roads or road segments
4. Streams or stream segments
5. Program areas
6. Conservation demonstration areas
7. Other areas

Appendix E–5 Conservation Projects

a. Conservation Demonstration Areas

Several conservation demonstration areas will be established at selected sites within the Blue Ridge Scout Reservation. These areas will showcase appropriate enhanced resource conservation on the Reservation.

These areas will focus on specific needs the Reservation resources have to include:

Ecosystem enhancement
Stream enhancement
Wildlife enhancement
Trail enhancement
Campsite enhancement
Soil enhancement
Program area enhancement

b. Chestnut Project

An effort will be made to reintroduce the American Chestnut (*Castanea Dentata*) as a principle species on selected sites within the Blue Ridge Scout Reservation.

c. Wild Plum Project

An effort will be made to reintroduce wild plums (*Prunus Americana*) as a shrub species on selected sites within the Blue Ridge Scout Reservation.

d. Box Turtle Project

In cooperation with VDGIF. An effort will be made to enhance the habitat for and population of common box turtles (*Terrapene Carolina*) on the Blue Ridge Scout Reservation.

Appendix E–6 Education Activities and materials

E–5.1 Bear Aware Materials

E–5.2 Leave No Trace Materials

E–6.3 Environmental Briefing

Unit (Group) leaders and staff are responsible for providing an environmental briefing for users:

- a. At the start of each day to briefly cover safety and environmental concerns relative to the day’s activities.
- b. At the start of each activity to reiterate safety and environmental concerns relative to the activity and activity program area.

Environmental briefings should cover (as a minimum):

- a. General safety hazards in the program area, including the current fire danger rating.
- b. Specific safety hazards in the program area.
- c. Any environmental concerns relative to special species or habitats
- d. Actions to be taken should one encounter safety hazards or environmental concerns.

Appendix F Trail Management Plan

(Completed)

Appendix G Campsite Management Plan

(To Be Developed)

Appendix H Fire Management Plan

(To Be Developed)

Appendix I Pest Management Plan

- I-1 Gypsy Moth
(completed)
- I-2 Hemlock Woolly Adelgid
(under development)
- I-3 Southern Pine Beetle
(to be developed)

Appendix J Feral and Exotic Organisms Management Plan

- J-1 General
- J-2 Ailanthus
- J-3 Coyote
- J-4 Autumn Olive
- J-5 Wild Dogs
- J-6 Feral Cats

Appendix K Pollution Abatement Management Plan

- K-1 Air Pollution
(to be developed)
- K-2 Water Pollution
(to be developed)
- K-3 Noise Pollution
(to be developed)
- K-4 Light Pollution

Appendix L Soil Resources Management Plan

(To Be Developed)

Appendix M Resource Extraction Management Plan

- M-1 Timber Harvest
(to be developed)
- M-2 Non-timber Forest Products
(under development)
- M-3 Geologic Resources
(to be developed)

Appendix N Aesthetic Improvement Management Plan

- N-1 Visual Corridor
(to be developed)
- N-2 Litter
(to be developed)
- N-3 Landscape
(to be developed)

Appendix O Cultural Resource Management Plan

- O-1 Historic Resource
(to be developed)
- O-2 Archaeological Resource
(to be developed)

Appendix P Road Management Plan

(to be developed)

Appendix Q Best Conservation Practices (BCP) Management Plan

- Q-1 Water Conservation
(to be developed)
- Q-2 Energy Conservation
(to be developed)
- Q-3 Construction Best Practices
(to be developed)
- Q-4 Reduce, Reuse, Recycle
(to be developed)

Appendix R Wildlife/Plants of Special Interest Management Plan

- R-1 Bear
- R-2 Cougar

VII. Maps

- A. Location Map**
- B. BRSR Map**
- C. Ecosystem Map**
- D. Management Zone Map**
- E. Geological Map**
- F. Soils Maps**

VIII. References

- Beattle, M., C. Thompson, & L. Levine (1993). *Working with Your Woodland, A Landowner's Guide*. Hanover, NH: U. Press of New England, 279p.
- Birkby, R.C. (1991). *The Conservation Handbook*. BSA
- Bolgiano, C. (2002). *Living in the Appalachian Forest*. Mechanicsburg, PA: Stackpole Books, 200p.
- Bolgiano, C. (1998). *The Appalachian Forest*. Mechanicsburg, PA: Stackpole Books, 280p.
- Carey, A.B. (2007). AIMing for Healthy Forests: Active, Intentional Management for Multiple Values. USDA-FS PNW-GTR-721. 447p.
- Cauley, P.M. et.al. Soil Survey of Pulaski County, Virginia. SCS. 168p.
- Constantz, G. (1994). *Hollows, Peepers, & Highlanders*. Missoula, MT: Mountain Press Pub. Co., 264p.
- Dolan, R., et. al. (1978). Environmental Dynamics & Resource Management in the US National Parks. *Environmental Mgt* 2(3): 249-258.
- Fogg, G.E. & J.W. Shiner (1981). *Management Planning for Park and Recreation Areas*. Arlington, VA: National Recreation & Park Assn., 110p.
- Houston, D.R. (1979). *Understanding the Game of the Environment*. USFS, AIB426, 174p.
- Iverson, L.R., et. al. (1999). *Atlas of Current and Potential Future Distribution of Common Trees of the Eastern United States*. USDA-FS, GTR NE-265, 243p.
- Leak, W.B., et. al. (1997). *Applied Ecosystem Management on Nonindustrial Forest Land*. USFS GTRNE-239.
- Masler, C. (1994). *Sustainable Forestry, Philosophy, Science and Economics*. Delray Beach, FL: St. Lucia Press, 373p.
- Pilarski, M., ed. (1994). *Restoration Forestry*. 525p.
- Sassaman, R.W. (1981). *Threshold of Concern: A Technique for Evaluating Environmental Impacts and Amenity Values*. J. For. 79(2): 84-86.
- Shiner, J.W. (1975). *Managing Outdoor Recreation Resources*. Water Spectrum, Fall: 17-20.
- Van Der Ryn, S. & S. Cowan. (1996). *Ecological Design*. Wasington, DC: Island Press, 201p.
- Graham, E.H. (1944). *Natural Principles of Land Use*. NY: Oxford U. Press, 274p.
- Weidensaul, S. (1994). *Mountains of the Heart*. Goldon, CO: Fulcrum Press, 276p.
- Wenger, K.F., ed. (1984). *Forestry Handbook 2nd Ed*. NY: John Wiley & Sons, 1335 p.

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Project Leader

National Conservation Committee