



Recreation Options for Your Forestland¹

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On any given day, one only needs to look outside to see the positive effect that recreation has on individuals and society. The chance to reduce stress, exercise body and mind, and interact with others in an outdoor setting provides millions of Americans with numerous benefits directly related to their health, happiness and productivity.

Forestlands in particular offer the opportunity to partake in numerous unique activities. Millions of Americans each year take to the woods to camp, picnic, hike, hunt, fish, horseback ride, study nature, photograph wildlife, and on and on.

These activities occur on both public and private lands. Public lands managed by the USDA Forest Service and Florida Division of Forestry operate under “multiple-use” principles where recreation is managed along with timber, wildlife, range, soil, water, cultural and environmental resources. On private lands, the owner has a similar opportunity to include recreational opportunities. In Florida especially, with increasing populations and interests in the outdoors, private forestland owners are in a good position to provide opportunities not only for their immediate families but others if so desired. Activities might include developing a trail through the property, or clearing an area next to a particularly scenic vista for camping or picnicking by family,

friends, or others. Forest recreation, like timber or wildlife, has value. Forest recreation activities can be enjoyed solely by the landowner, or shared with others on a fee basis.



Figure 1. Forestlands offer unique activities such as camping, picnicking, hiking, hunting, fishing, horseback riding, nature study, and wildlife photography.

Natural resource professionals, forest landowners and the general public also consider the value of the scenic resource when evaluating recreational opportunities. Visually pleasing landscapes attract praise and compliments (not to mention visitors with money if so desired!) while degraded, rundown or abused sites attract

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complaints. Many people associate clear-cuts, controlled burns, or areas recently treated with herbicides with blighted and damaged environments. Such negative impressions can be avoided with proper planning and execution. It is important for those who implement land management practices (e.g. loggers and herbicide applicators) to know more about scenic management and the importance of visually pleasing landscapes. Scenery management can alleviate many problems associated with the public's perception of silviculture on forestlands.

A new program that has been developed for forest landowners interested in multiple-use management of this type is called the Forest Stewardship Program. This federal program is administered by the public forestry agency in each state, which in Florida is the Division of Forestry (DOF). If forestland owners are interested in managing their land to improve its many resources and would like technical and financial support, then a call to the local DOF County Forester is recommended (check the blue pages of your phone book). Also, ask for a copy of Circular 1020 entitled The Florida Forest Stewardship Program and other Forest Stewardship publications.

The Stewardship Program has responded to the increased interest in recreation and scenic management by offering both technical and financial assistance in these areas. Technical advice focuses on incorporating recreation and scenery into a management plan and putting goals into action. Financial assistance, through the Stewardship Incentives Program (SIP), involves cost-share reimbursements for certain recreation and scenic management improvements. Priority is given to landowners who are interested in forest recreation that provides beneficial impact to the environment. The forest landowner can choose between managing the recreational resource as a primary objective or as a secondary objective.

An example of forest recreation as a primary objective might be the case where a forestland owner wishes to manage property as a low-impact camping and outdoor study site for use by family, local schools or civic groups. Timber, wildlife and soil and

water conservation are subsequently managed to enhance the recreation and interpretive experience. As an example of forest recreation as a secondary objective, areas might be located adjacent to harvest sites for wildlife viewing and photography. In both of these cases, property owner goals are instrumental in developing a proper action plan.

Including Recreation and Scenery in the Stewardship Management Plan

A management plan is essential to accomplish the landowner's objectives, whether they are financial or otherwise. A Stewardship Management Plan summarizes the opportunities and options available to a landowner, as well as limitations on management activities. It describes how various objectives and outcomes will be achieved through the interaction of different resources and activities. The plan is by design a dynamic document and should be updated at least every five years.

Determining Objectives

Landowners interested in recreation management on their forest land must first determine their objectives. Each landowner is unique and sees his or her land differently. Some landowners would like to make improvements solely to benefit themselves and their direct families while others would like to let the public use and enjoy their land. Regardless of what the landowner would like to do, the Stewardship Program provides assistance in planning. To focus objectives, landowners should ask themselves who will be using the forest for recreation. Will it be family only, close friends, school classes, scouts, the general public, or will it be leased to others. Objectives need to be set with two things in mind: what kinds of resources are available to the landowner (land, money, time, etc); and what is the desired future situation (increased income, a more valuable piece of property, a sense of community involvement, etc).

As objectives are determined, it will be important to understand the interrelationships of recreation with timber, wildlife, range, soil and water management. The natural resource professionals involved in developing the Forest Stewardship Plan

can provide necessary information and direct relevant questions to researchers.

Inventorying Resource Qualities

Objectives are difficult to determine without information on the quantity and quality of available resources and the potential demand for the opportunities produced. Information that might be helpful in determining the recreational capacity includes soil types and conditions, slope characteristics, vegetation types, orientation to water, line of sight or vistas and wildlife and fish populations. Each of these factors can be useful as the recreational component of the Stewardship Plan begins to take shape. Other features that might be inventoried include existing land use, cultural and historical resources, accessibility to population centers and types of access roads, and trails or waterways and their condition. Logically, any recreational facilities already present along with information on their condition and current use should also be recorded. Such a review of existing facilities should include a wider area than just the landowner's property. A map or series of maps can now be developed for use in analyzing the recreational resource and the most effective way to achieve the landowner's objectives.

Many factors will ultimately determine the level of recreational use on a particular piece of property. Tracts of land with unique features and diverse ecosystems in relatively close proximity to population centers are usually highly sought after by the recreating public although lands with less diversity can be enhanced to attract people. The current demand for high quality camping, trails and hunting areas in Florida is quite high and varies by region of the State. The Florida Department of Natural Resources studies trends and should be contacted if a market study for a particular recreational opportunity is desired.

Recreational Practices

Numerous activities are possible on Florida's forestlands; each tract has its unique potential. Some of the more common activities included in Stewardship Plans are design and development of hiking and horse trails and camping and picnicking

sites, lake and water recreation, cultural and historical improvements, hunting and fishing, wildlife photography and nature study. Basic ideas for each of these popular activities will be discussed. For more information contact private consultants with interests and backgrounds in multiple-use management, landscape design and forest recreation.

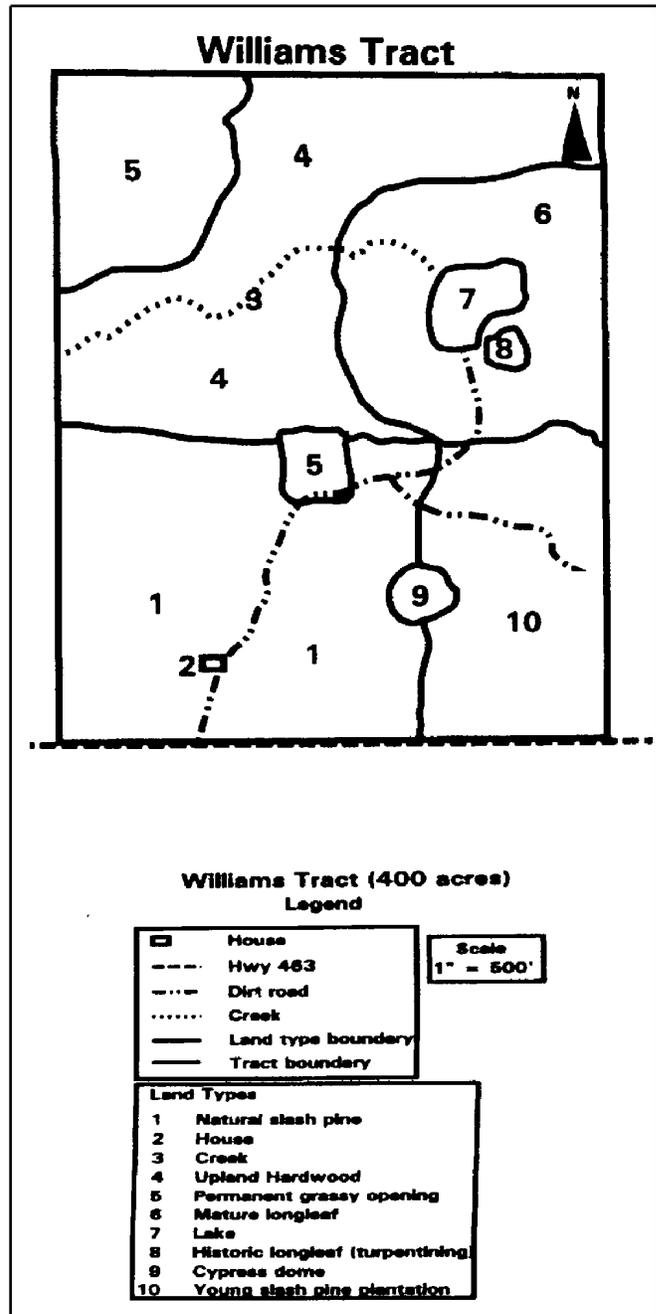


Figure 2. A map with a legend depicting silvicultural and recreational attributes is a valuable tool.

Trail and Walkway Development

Trails are the most common improvements made to facilitate forest recreation. A forest trail is used either as part of the recreational experience in itself, as with a nature trail, or as a means to reach a recreational area such as a scenic vista or hunting area. Trails can be used for walking or jogging, horseback riding, operating bicycles, or wheelchairs. Trails should be designed to facilitate travel, reduce erosion, and preserve and protect plants, animals and the scenery. During the planning phase the landowner or manager should decide who would be using the trail so that it can be built to suit the different requirements of these potential forestland users. In the planning phase, it may be helpful to ask the following questions.

- how extensive will the trail system be?
- what is its purpose?
- who will use the trails?
- how much will trails be used?
- what are potential conflicts between users?
- where will access and parking be located?
- will any sanitation facilities be provided?
- what will be provided for special populations?

When designing trails, topographic maps, soil surveys and aerial photos showing the detail and elevation of the area should be used to evaluate natural features, vegetation, points of interest, and possible hazards. The map will help the landowner and stewardship management team develop a trail system that will follow the natural contour of the land, avoid potentially hazardous areas, and provide the most direct and pleasing route to the desired point. To minimize environmental degradation a trail should follow the contour of the land when possible, avoid direct contact with streams, lakes or other wetland areas, and utilize erosion control measures. Any area that is environmentally sensitive should also be avoided to prevent damage.

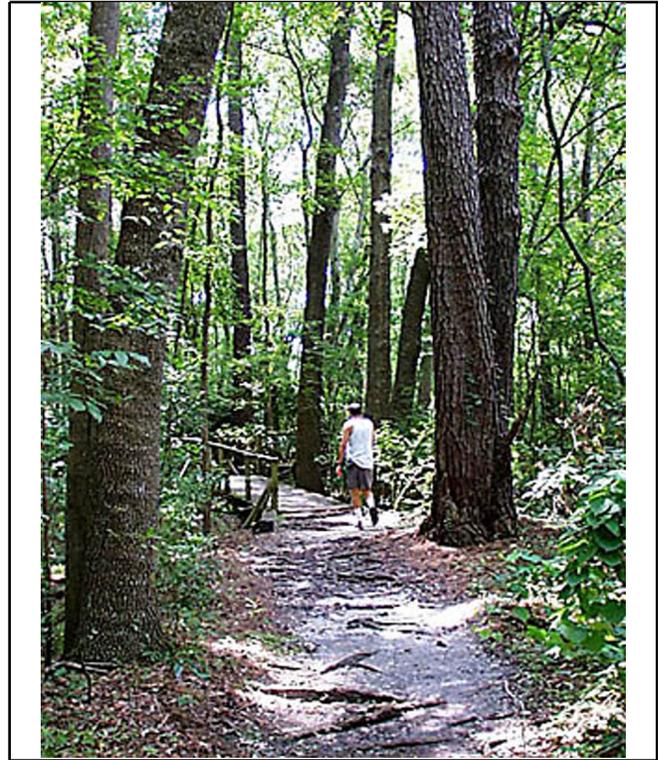


Figure 3. Trails should be 5-8 ft wide, free of obstacles, have an overhead clearance of 8-10 ft, and a grade of 1 to 6 %. Boardwalks and bridges should be used in wet or fragile areas.

Trails cost-shared under the Stewardship Incentives Program should be 5 to 8 feet wide for use by people, bicycles, wheelchairs and horses. There should be no obstacles such as stumps, large rocks, fallen logs, or protruding branches in the trail. To maximize safety it is recommended that all brush and obstacles be cleared to a distance of 2 feet on each side of the trail. Overhead clearance is also important and vegetation should be cleared to a height of 8 to 10 feet. The grade of the trail should range from 1% to 6% for most recreational activities but can be 10% to 15% for short distances. Steps are also advisable where the grade is steep or on gentler slopes where soil or trail surfaces are likely to be slippery when wet. Zero percent slope in the trail should be avoided due to the potential of standing water. Because of Florida's relatively flat terrain this can be a problem. The Florida Trail Association has experience and documentation on trail building and can be contacted for more information.

Local terrain and the purpose of the trail will affect construction techniques. If the area is hilly then cutting and filling may be required to maintain a

level trail if one is desired. Soft ground will require more preparation such as packing or surfacing. Surfacing and trail bed preparation can range from cleared bare ground, mulch, or gravel to asphalt paving. A trail used by bicycles and horses will probably require the preparation of a more solid base than one primarily designed for hikers. If a bike or horse trail is to be used for two-way traffic then trail width should be doubled. Horse trails will also require more maintenance to prevent erosion problems. Trail clearing should be done by hand labor, or by using a drum chopper or rotary mower pulled behind a tractor. Erosion control structures and construction techniques such as water bars or reverse grades need to be utilized wherever trail and site deterioration are likely. Soils are a very important consideration in trail development. Soils high in silt and clay are muddy when wet, dusty when dry, and are erodible. Soils high in sand are unstable when dry and support few plants. Organic soils are extremely fragile but moderate amounts of organic matter increase soil stability. Soils with moderate amounts of sand and loam are generally the most desirable for trails. Soil tests should be done along the proposed trail route to determine soil types and conditions (contact your local Cooperative Extension Service and the Natural Resources Conservation Service for more information).

Boardwalks and bridges should be used in areas where trails pass through swampy or fragile areas, cross a small stream or unstable soils, or to provide better access to a scenic vista. Boardwalks can also be used to facilitate access for special populations.

Signing and marking of trails for directions, nature study, historical purpose, or routes and distances to points of interest increase user enjoyment. Homemade signs and signboards, tree marking tags or professionally produced materials like cassette tape tours, and self-guided tour books or brochures can be used for this purpose. Home computers can be used to design trail maps and signs that can be weatherproofed for longevity.

Additional information on trails and crossings is available in Circular SS-FOR-5 by Long and Todd-Bockaire (see references at the end of this paper).

Lake and Water Recreation

Some forest sites have lakes, rivers or streams that can be used for swimming, fishing, boating and other activities. Safety is an important factor around any water area and should be carefully considered. The level of development ranges from small clearings for fishing to income-generating facilities open to the public with beaches, bathrooms, and pavilions. Proper resource planning and design are important to prevent damage to waterfront areas and maintain the natural integrity of the area. Fisheries and aquaculture specialists at the University of Florida can be contacted to learn more about fishing opportunities.

Recreational Sites

Clearings and semi-openings in the forest can be developed and used for purposes such as camping and picnicking. These areas can range from primitive to fully developed facilities with shelters, bathrooms, and tables. In the Stewardship Incentives Program, clearings of up to 1/2 acre in size where at least 50% of the tree density is retained can receive cost sharing. Tree removal should emphasize hazard trees. Sites located near wetland areas should be planned carefully to prevent environmental degradation of typically fragile ecosystems and contamination of drinking water.

The site should have a buffer zone between any main trails or parking areas to reduce the traffic through the area and increase privacy. To reduce environmental impact the site should have a gentle slope of less than 10%. Where erosion is a problem, adequate drainage and soil conservation practices need to be utilized as recommended by the Natural Resources Conservation Service.

Distance from the parking area or point of entrance to the recreational site is an important factor. If the goal is to provide easy access to users with vehicles then the picnic area should be no more than 250 to 400 feet from the parking lot. If the area is part of a trail system or is to be used as a primitive campsite, a short distance is less important. Camping areas should also be level and designed to minimize erosion. Environmental damage can be reduced by controlling runoff, using vegetation for soil

stabilization and using the same site continually to impact less of the total forest. If wilderness camping is the desired goal then several small sites at least 200 feet apart will maintain the natural effect for each party. Camping areas should also be off the main trail to reduce through-traffic and increase privacy. The size of the site will vary depending on estimated or desired usage.

Fire management is an important factor to consider when clearings are developed for camping, general use, or picnicking. It is recommended that all materials needed for a fire be brought in by the users or be provided by the landowner in order to reduce the deterioration of the area. Fire rings or grills should also be provided to encourage use of the same spot each time. Prevention of wildfires can also include construction of fire lines and controlled burning in surrounding areas, however these practices should be timed when no visitors are allowed in the areas.

Sanitation, water supply, and refuse removal from a site can be a problem if usage is high. Today, low impact camping has become a popular alternative; campers take out all refuse and disposable items and minimize impact to the campsite. Nonetheless, refuse removal systems should be developed. Human waste disposal can be provided by digging a pit latrine or developing full facilities, depending on the level of use. It is not advisable to have a camping area that receives more than occasional usage without some type of toilet facility. Human waste carries many diseases, which could quickly poison an area. Water supplies should also be considered for camping areas designed to be utilized for more than one night. Portable water tanks or hand pump wells are adequate in most cases.

Hunting

Hunting on lands managed for timber is common in Florida, and is developed in a variety of ways. Management activities include prescribed burning, structural improvements such as permanent camps and tree stands, and planting food plots. Hunting lands are used privately by the landowner, opened to the general public, leased to individuals and clubs, or developed as a business enterprise.

When considering forestland for hunting and fishing, safety and liability should be primary considerations. A clear, concise contract should be drawn up so all concerned parties are fully aware of their rights and responsibilities. Safety practices should be stressed; as a minimum they should include posting warning signs for dangerous areas, and restricting access to, and use of, the property for other recreational purposes during hunting season. Some hunting clubs require their hunters to pass safety courses.

Cultural and Historical Areas

Florida is rich in history. Sites with dinosaur bones, indian mounds, old mills, or settler ruins can be used for recreational and interpretive purposes. Development of these areas offers excellent opportunities for forest landowners who would like to provide public education. Most sites should be accessible and protected. Trails, clearings and fences in and around the site ensure long-term protection and safety. Interpretive signs and markers can also be used to explain the history and importance of the structure or area. The local historical board can be contacted concerning preservation techniques and placement on national register status.

Scenery and Environmental Enhancement

A landowner may decide to manage specifically for visual qualities or certain plant and animal communities. Improvements to an area to enhance its appearance include planting wildflowers or ornamental trees and shrubs; planting native trees to increase species diversity in an area; retaining or planting trees with desirable characteristics such as good fall colors or desirable fruits; and selective thinning of planted stands to create a more open, "natural" appearance. The use of species native to the area is encouraged. The Florida Game and Freshwater Fish Commission keeps lists of exotic and invasive species, which shouldn't be planted. Also, certain plants and trees that are poisonous, odorous or produce excessive pollen should be avoided in areas open to the general public. Contact the Game Commission or the Cooperative Extension Service for assistance in determining desirable grasses, legumes, shrubs and trees.

Wildlife is impacted by available food, water and habitat. If an endangered or desired species lives in the recreational area, improvements can be made to increase or maintain the populations. An example might be to leave snags or old growth trees as nesting habitat. Another could be the planting of food plants for songbirds. Certain grasses, shrubs and trees can be incorporated into the landscape to create the right conditions for the desired species. Clearing can also be created to allow more light to reach the forest floor and encourage understory growth. Many forest management practices such as prescribed burning on a regular basis encourage the introduction or sustainability of certain plants and animals.

Recreation and Multiple-use Management

Multiple-use management as explained earlier is a very popular and viable concept for many landowners. Natural resource professionals are finding ways to integrate and manage a number of resources at the same time on the same property. This does not mean, however, that a particular mix of resources must be managed on an acre-by-acre basis. It means that all the desired resources are taken into account and are planned and managed for accordingly over the property as a whole. It also means understanding the interrelationships between resources. How does a timber harvest affect the wildlife, range, soil, water and recreation resources on this and surrounding landscapes? What happens to the mature-forest dwelling animals when an area is completely harvested? Does an opening, such as a clear-cut, enhance the habitat for certain species? These are major concerns that the Stewardship Management Team or consultant needs to address in the Management Plan. They are responsible for developing a plan for the landowner that meets multiple use goals.

Safety and Liability

Forest recreation of any kind involves some degree of risk to health and safety. Some users actually desire risky ventures as in the interest in rock climbing, wilderness survival camping, and trail biking. Forest landowners desiring to share their land for recreational use will need to take steps to reduce

risks. Based on their management objectives, landowners need to match the desired experience with the appropriate reduction in risk and improvement in safety. For example, if the landowner wishes to invite civic groups to the site for interpretive walks then appropriate trail maintenance should be undertaken. The trail should be free from hazards below, to the side, and above. Trees are perhaps the most overlooked but potentially most dangerous hazard. Rotten, excessively leaning and dead trees close to trails should be removed or pruned immediately. A professional with knowledge in hazard trees (such as an arborist or urban forester) should inspect the site or trail on a regular basis. A comprehensive safety check including trees and other potential and obvious hazards should also be done on as regular a basis as possible.

Related to safety are legal concerns. There are abundant laws concerning property, wildlife, natural resource, environmental, business, access, and liability issues. Of most concern today is the liability question that many landowners have when discussing forest recreation on their lands. On primitive, undeveloped lands liability is minimized, however as the site is developed and fees are charged, the landowner begins to take more responsibility. Florida, like the other 49 states, has enacted a law (Florida Annotated Statute 375.251) that limits the liability of persons making available to the public certain areas for recreational purposes without charge. Risk analyses should be done regardless of whether or not fees are charged with the intensity of the analysis related to the amount of development and the amount charged.

Florida's Department of Community Affairs now requires each of Florida's 67 Counties to develop a comprehensive plan. Land use and areas of specific concern are outlined in this plan. You should contact the local county environmental protection office to determine what is necessary for compliance, especially with concern to management activities in wetlands. Also, the Americans with Disability Act (ADA) will require those who open their land to public use to provide handicap-accessible facilities.

How to Begin

Indeed forest recreation can be simply applied and involve only minimal modifications to the Stewardship Plan and site or it can be quite comprehensive and involve major modifications. The Florida Division of Forestry is a good starting point as they can offer advice on how to accomplish particular goals and objectives. They will assemble a team of natural resource professionals from the Florida Game and Fresh Water Fish Commission, the Natural Resources Conservation Service, the Cooperative Extension Service, and a private forestry consultant if so desired. Once the Plan is developed, you can apply for financial assistance and begin implementing practices when assistance is approved.

Assistance and Information

All of the previously mentioned state and federal agencies may be contacted for additional information, as can local libraries and forestry and agricultural departments at the University of Florida and Florida A&M University. For legal and other business-related information, you may want to meet with professional consultants, attorneys, accountants, bankers, insurance agents, or the Small Business and Farmers Home Administrations. As discussed earlier, the Stewardship Incentives Program offers limited financial support for many multiple-use activities through the Forest Stewardship Program. Other financial assistance programs involve reimbursements for planting trees and can be incorporated into the recreation plan. These include the Forestry Incentives Program (FIP), and the Environmental Quality Incentives Program (EQIP).

Interested landowners should contact the local Florida Division of Forestry County Forester in the county where the property is owned for more information.

Additional Reading

The following information can be obtained from a variety of sources. Try checking with the local library first, then the University of Florida's Forest Recreation Specialist in the Cooperative Extension Service.

Appalachian Mountain Club. 1981. Field guide to trail building and maintenance. AMC. Boston.

Douglas, Robert W. 1993. Forest recreation. Waveland Press, Inc. P.O. Box 400, Prospect Heights, IL 60070. 373 pages.

Florida Trails Association. 1992. Trail manual of the Florida Trail. (Contact Florida Trails Association, Gainesville, FL).

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Jubenville, Alan. 1976. Outdoor recreation planning. W.B. Saunders Company, W. Washington Square, Philadelphia, PA 19105. 398 pages.

Leonard, R.E. 1980. Guidelines for backcountry facilities: design and maintenance. Appalachian Mountain Club. Boston.

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