Applying the Forest Service Trails Accessibility Guidelines

The first step in applying the Forest Service Trails Accessibility Guidelines (FSTAG) is to know when and where compliance is required. Section *7.0 General* and *7.1 Extent of Application* state that the FSTAG applies to National Forest System trails within the boundaries of a National Forest that meet **all** these criteria:

- The trail is new or altered.
- It is designed for hiker or pedestrian use.
- It connects either directly to a trailhead or to a trail that is already accessible.

The FSTAG doesn't apply to existing trails unless there is a change in the original purpose, intent, or function for which the trail was designed—an alteration, in other words. It doesn't apply to trails designed for ATV, equestrian, or any other nonpedestrian use. The FSTAG uses the term *designed for hiker/pedestrian use* in accordance with the Forest Service trail planning and management rules and National Trail Management Classes, which are also the Interagency Trail Data Standards. This information is available at: *http://www.fs.fed.us/r3/measures/TR.htm*.

The FSTAG doesn't prescribe different "levels of accessibility" based on trail class or any other grouping criteria. Following the same philosophy as the draft document on outdoor recreation developed by a regulatory negotiations committee of the Architectural and Transportation Barriers Compliance Board (Access Board), the FSTAG recognizes that a trail is either accessible or it is not. The FSTAG provides guidance for maximizing accessibility, while recognizing and protecting the unique characteristics of the natural setting, level of development, and purpose of each trail—through the use of conditions for departure from the guidelines and the related exceptions to the technical provisions, explained below.

As explained in the budget tip *Is cost an excuse?*, cost is not a valid reason for failing to make a a trail accessible. In all likelihood, the FSTAG won't apply to most portions of existing primitive, long-distance trails, al-

though it may apply to segments that pass through developed areas. The FSTAG recognizes that there is no real benefit in making a newly constructed or altered trail in the backcountry accessible if the only way to get to it is by using an existing trail that isn't accessible and probably can't be made accessible. Application of the FSTAG will ensure that the full range of trail opportunities continues to be provided, from primitive long-distance trails to highly developed interpretive trails at popular scenic overlooks, providing hiking opportunities for everyone (figure 102).
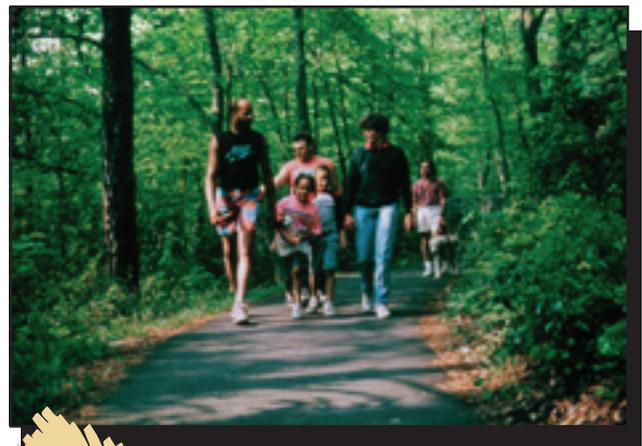

Figure 102—Hiking is for everyone.

Is It a Trail or an Outdoor Recreation Access Route?

An Outdoor Recreation Access Route (ORAR) is a continuous, unobstructed path designated for pedestrian use that connects pedestrian elements within a recreation site such as a picnic area, camping area, or trailhead. In contrast, a trail is defined by the 2002 Inter-agency Trail Standards as a linear route managed for human-powered, stock, or off-highway vehicle forms of transportation or for historic or heritage values. A trail is not an ORAR and is not subject to the requirements for

ORARs found in section 2.0 of the FSORAG. Accessible trails designed for pedestrian and hiker use have their own set of requirements that are described below.

Understanding Trail Terminology

Although this guidebook tries to explain requirements in ordinary language, some terms are important to understanding how the FSTAG is applied. The terms aren't organized alphabetically, but are grouped so that it's easy to understand the distinctions between similar terms.

Designed use is the intended use that controls the geometric design of a trail and determines the level to which it should be maintained. There is only one designed use per trail or trail segment. Although the trail may be actively managed for more than one use, the designed use determines the technical specifications for the trail. Often, the designed use is the managed use that requires the highest level of development. For example, pack and saddle stock require higher and wider clearances than do hikers, so a trail managed for both foot travel and horse use probably would have a designed use of "pack and saddle" rather than "hiker/pedestrian." More information about trail design parameters for the different designed uses is in *USFS Trail Design Parameters*, available at: *http://www.fs.fed.us/r3/measures/Inventory/trails% 20files/National_Design_Parameters_1_31_2005.doc*.

Managed use includes the modes of travel that are actively managed and appropriate for a specific trail or area. This use reflects the management decision or intent to accommodate or encourage a specific type of trail use. Each trail or trail segment may have more than one managed use. For instance, a single trail may be managed for hiker and equestrian use in the summer and for cross-country skiing in the winter.

A **trailhead** is a site designed and developed by the Forest Service or other government agency, trail associations, trail maintaining clubs, trail partners, or other cooperators to provide a staging area for a trail. For purposes of the FSTAG, trailheads are not:

• Junctions between trails where there is no other access.

• Intersections where a trail crosses a road, or where users have developed an access point, but no improvements are provided by the Forest Service, trail associations, trail maintaining clubs, or trail partners, or other cooperators beyond minimal markers or modifications for health and safety.

Trail classes broadly organize trails by desired management characteristics and the level of development, based on forest plan direction. Trail classes take into account user preferences, the setting, protection of sensitive resources, and management activities. Trail classifications range from Trail Class 1 trails, which appear little different from animal paths and may disappear intermittently, to Trail Class 5 trails, which are usually wide, paved paths associated with highly developed environments. The FSTAG does not change Forest Service trail classes. More information about National Trail Management Classes, which are also the Interagency Trail Data Standards, is available at: *http://www.fs.fed.us/r3/measures/Inventory/trails%20files/Trail_Class_Matrix_1_31_2005.doc*.

Setting is the term used to describe the natural surroundings of a trail. On public lands outside rural and urban settings, the natural surroundings are usually the primary attraction for visitors. Improvements, such as trails, should not adversely affect the setting. For example, the design for a trail crossing a glacial boulder field must protect the geologic features. Accessibility is incorporated to the extent possible without fundamentally altering the natural environment. On the other hand, a trail designed for a wide open, relatively level area should follow the requirements of the FSTAG to the highest degree possible.

The following terms describe construction and maintenance work:

Construction is building a new trail or segment of trail where there was no trail before.

An **alteration** is a change in the original purpose, intent, or function for which the trail was designed.

Maintenance is the routine or periodic repair of existing trails or trail segments to restore them to the standards or conditions to which they were originally designed and built. Maintenance does not change the original purpose, intent, or function for which the trail was designed. Trail maintenance work isn't covered by the FSTAG. Maintenance includes:

- Removing debris and vegetation, such as fallen trees or broken branches on the trail; clearing the trail of encroaching brush or grasses; and removing rock slides.

- Maintaining trail tread, such as filling ruts, reshaping a trail bed, repairing a trail surface or washouts, installing riprap to retain cut and fill slopes, and constructing retaining walls or cribbing to support trail tread.

- Performing erosion control and drainage work, such as replacing or installing drainage dips or culverts, and realigning sections of trail to prevent erosion or to avoid boggy areas.

- Repairing or replacing deteriorated, damaged, or vandalized trail or trailhead structures or parts of structures, including sections of bridges, boardwalks, information kiosks, fencing and railings; painting; and removing graffiti.

While the FSTAG doesn't apply to maintenance, Forest Service policy is to improve accessibility wherever the opportunity arises. Resource managers are encouraged to improve accessibility on trails through trail maintenance

and repair activities. Every time a trail is maintained, there is an opportunity to improve access.

The term *reconstruction* is not used in Federal accessibility guidelines or the FSTAG, even though the term is used frequently by the trails community. For the purposes of the FSTAG, actions are categorized as construction, alteration, or maintenance.

TERMINOLOGY TIP—
What do you call a reroute?

If trail work is grouped into only three categories—construction, alteration, and maintenance—what category do things like rerouting, reconstruction, and extensions of existing trails fall into? The key to answering this question is to concentrate first on the definition of *alteration*. Does the new work change the **original purpose, intent, or function** for which the trail was designed? In other words, will the trail serve a new destination? Will trail use change from, say, horses to hikers after you're done? Are you significantly changing the overall trail grade, width, or surface, or adding bridges where the trail used to ford streams or rivers? If the work doesn't fit the definition of *alteration*, it's either *construction* (if there was no trail there before) or *maintenance*.

Trail Construction Techniques

There is plenty of good information available to help you build a trail, so we won't repeat it here. The *Trail Construction and Maintenance Notebook* includes practical techniques used to construct and maintain trails. It is

written for trail crew workers and is intended to be taken along on work projects. Numerous illustrations help explain the main points. It is available at: *http://www.fs.fed.us/eng/pubs/htmlpubs/htm04232825/* and *http://www.fhwa.dot.gov/environment/fspubs/00232839/*.

The report, *Wetland Trail Design and Construction*, describes materials and techniques used to construct trails in wetlands. It is written primarily for workers who are inexperienced in wetland trail construction, but it may also be helpful for experienced workers. Techniques suitable for wilderness settings and for more developed settings are included as well as lots of drawings to illustrate important points. It is available at: *http://www.fs.fed.us/t-d/pubs/htmlpubs/htm01232833/* (Username: t-d Password: t-d) and *http://www.fhwa.dot.gov/environment/fspubs/01232833/*.

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Standard Forest Service trail specifications are available at: *http://www.fs.fed.us/database/acad/dev/trails/trails.htm*.

Using the Conditions for Departure in the FSTAG

The FSTAG is based on the realities of the outdoor environment and recognizes that accessibility is not feasible everywhere because of limitations imposed by the natural terrain, existing vegetation, or other constraints. To ensure that the unique characteristics of the outdoor environment and trail recreation opportunities aren't compromised or fundamentally altered, exceptions and deviations from some technical provisions are permitted where certain circumstances, called *conditions for departure*, apply.

Section 7.1.1 of the FSTAG identifies four conditions for departure, and each is explained in more detail below. Circumstances under which exceptions can be made

based on the conditions for departure differ depending on the setting. Conditions for departure permit deviations from technical provisions only where there is a general exception or an exception detailed in the technical provision sections for a particular trail component. General exceptions and technical provisions for trail components will be explained later.

Conditions for departure are not a blanket exemption from all of the technical provisions for an entire trail! If a condition for departure occurs only on part of the trail or trail component, the technical provision applies everywhere else, and all technical provisions not affected by the condition for departure also apply. For example, if there is a trail between a stream containing endangered aquatic species and a cliff with petroglyphs on it, and you can't get the required trail width without either filling part of the stream or destroying some petroglyphs, an exception allows a narrower trail past the petroglyphs. One of the conditions for departure is "where compliance would cause substantial harm to cultural...or significant natural features." How-ever, the other technical provisions still apply to that stretch of trail and the technical provision for width still applies to all the rest of the trail.

DESIGN TIP—
Why is compliance required on both sides of a departure?

Why is the trail required to comply with the accessibility provisions after terrain or an obstacle makes it necessary to depart from the guidelines? A person in a wheelchair would be blocked by the terrain or obstacle, so why make the trail accessible past that point?

Although accessible design is based on wheelchair dimensions, clear space, maneuvering room, and reach ranges, only 2 percent of people with disabili-

ties use wheelchairs. The majority of people with mobility impairments don't use a wheelchair, but rely on crutches, canes, walkers, or braces. They may be able to get around or over an obstacle without too much difficulty. Although steep terrain may be difficult, it may be manageable for a limited distance.

Likewise, a person using a wheelchair might need assistance from companions to make it up a steep grade or to get over an obstacle, but once that difficulty is past, the individual can continue on the trail independently if the rest of the trail complies with the accessibility guidelines.

Figure 103—This giant sequoia grove is an example of a significant natural feature.

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The conditions for departure cover all the important elements of a long-distance trail and the aspects that are considered when locating trail segments, but they should not be used as an excuse or loophole for failing to make trails accessible. Rather, they are to be used when all other design options have been thoroughly explored and a determination has been made that full compliance with the technical provisions would unacceptably alter the nature of the experience the visitor is seeking.

The four conditions for departure permit deviations from specific technical provisions where allowed by an exception. General examples are provided to help explain the intent of the conditions so that designers understand how to apply them according to the site-specific constraints and opportunities of their projects.

1—Where compliance would cause substantial harm to cultural, historic, religious, or significant natural features or characteristics.

A significant natural feature might be a large boulder or rocky outcrop, a unique tree or vegetation such as a giant sequoia grove (figure 103), or a body of water that is regarded as distinctive or important locally, regionally, or nationally. Significant natural features also could include

areas protected under Federal or State laws, such as habitat for threatened or endangered species, designated wetlands that could be threatened or destroyed by full compliance with the technical provisions, or areas where compliance would substantially harm natural habitat or vegetation.

Significant cultural features include areas such as archeological or other heritage sites, sacred lands, burial grounds and cemeteries, and tribal protected sites. Significant historical features include properties listed or eligible for listing on the National Register of Historic Places or other places of recognized historic value. Significant religious features include tribal sacred sites and other properties held sacred by an organized religion.

If the significant feature would be directly or indirectly altered, destroyed, or otherwise harmed by construction of the trail or trail element when making it accessible, this condition for departure would apply. Consider only the additional impacts of changes needed to provide accessibility. This condition for departure doesn't apply where substantial impact will result from construction of

a trail that is not accessible and only a little more impact is due to construction directly related to accessibility.
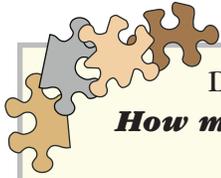
DESIGN TIP—
How much harm is too much?

The "harm" that is to be considered by this condition for departure is only the additional impact of increasing the width, reducing the trail grade or cross slope, or other change required for accessibility. For instance, there may be concern about the number of wildflowers being removed on cut and fill slopes for an accessible sidehill trail. The plants may be an uncommon species for which the surrounding river drainage and a nearby town are named. The trail construction will destroy most of the flowers as well as the seep-dampened hanging meadow that provides their habitat. This condition for departure wouldn't apply if 323 square feet (30 square meters) must be disturbed to make way for a trail that is not accessible and only another 75 square feet (7 square meters) must be disturbed to provide an accessible trail. The majority of the proposed damage to the wildflowers is not attributable to compliance with accessibility requirements. In this case, an alternate location should be selected for the trail.

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2—Where compliance would substantially change the physical or recreation setting or the trail class or designed use of the trail or trail segment or would not be consistent with the applicable forest land and resource management plan.

Public lands provide a wide variety of recreational experiences, from highly developed areas that offer almost all the conveniences of home and plenty of opportunities to relax with family and friends, to wilderness areas that appear unchanged from primeval times and provide opportunities for individuals to experience primitive

and challenging conditions. The FSTAG recognizes the value of the full range of recreational opportunities by allowing exceptions where compliance with technical provisions would change the nature of the recreation opportunities or conflict with the resource management plan.

People using primitive trails, for example, experience the outdoor environment in a nearly natural state, with limited or no development. In these settings, people generally desire challenge and risk so they can use their outdoor and survival skills. Use of manufactured building materials or engineered construction techniques to comply with accessibility requirements could destroy the natural or undeveloped nature of the setting and change the visitor's experience. There is no requirement to dynamite obstacles or pave trails so they will be accessible if doing so would unacceptably change the character of the setting and the recreation opportunity.

Consider a trail intended to provide a rugged experience, such as a cross-country training trail with a steep grade or a fitness challenge course with abrupt and severe changes in elevation. If these trails were flattened out or otherwise constructed to comply with the technical provisions for accessible trails, they wouldn't provide the desired challenge for users. Trails that traverse boulders and rock outcroppings are another example. The purpose of these trails is to provide users with the opportunity to climb the rocks. To remove the obstacles along the way or reroute the trail around the rocks would destroy the purpose of the trail. The nature of the setting also may be compromised by actions such as widening a trail for an imported surface or removing ground vegetation from fragile or erosive soils.

3—Where compliance would require construction methods or materials that are prohibited by Federal, State, or local law, other than State or local law whose sole purpose is to prohibit use by persons with disabilities.