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**U. S. House Committee on Natural Resources
Subcommittee on National Parks, Forests and Public Lands
H.R. 4289, the Colorado Wilderness Act of 2009
March 11, 2010**

On behalf of the International Mountain Bicycling Association (IMBA) and our Colorado IMBA-affiliated clubs, thank you for the opportunity to offer comments on the Colorado Wilderness Act of 2009 H.R. 4289.

IMBA is a national and international education and advocacy organization whose mission is to create, enhance, and preserve great trail experiences for mountain bicyclists worldwide. Nationally, we represent 750 IMBA-affiliated clubs, 32,000 individual members, and more than 800 corporate partners and bike shops. Annually, mountain bikers contribute almost one million volunteer hours advocating for public land protection and building environmentally sustainable trails.

We begin by thanking Congresswoman DeGette for her outstanding support for Colorado public lands. There are many special places across our beautiful state threatened by resource extraction, development, and road building. IMBA agrees that Colorado's most treasured places must be safeguarded. Our hope is to see them protected from detrimental activities while still allowing for healthy, low-impact recreation, such as mountain biking.

Wilderness designations are one of the most historically important methods for protecting natural areas. However, because bicycling is not allowed in Wilderness by regulation, IMBA suggests a strategy of employing "companion designations," such as Natural Conservation Areas, National Scenic Areas, and Natural Protection Areas, to complement Wilderness areas and maintain access for Colorado's world-renown mountain biking trails.

Bicycling Brings \$133 Billion to U.S. Economy and Supports 1.1 Million Jobs

Bicycling, both on road and off, contributes \$133 billion annually to the U.S. economy, supports nearly 1.1 million jobs across the U.S. and generates \$17.7 billion in annual federal and state tax revenues. Bicycling produces \$53.1 billion annually in retail sales and services, including \$6.2 billion in bicycling gear sales and services and \$46.9 billion in bicycling trip-related expenditures (Outdoor Industry Foundation 2006).

In the mountain states—combining Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, and Wyoming—bicycling contributes \$6.2 billion annually to the regional economy. Bicycling supports more than \$1 billion in annual state and federal tax revenues and produces

nearly \$4.1 billion annually in retail sales and services.

Colorado a Top State for Mountain Bicycling

In Colorado, IMBA represents 30 IMBA-affiliated mountain bike clubs and five volunteer mountain bike patrols. The state has 312 independent bicycle dealers that support our work. Tourism in Colorado industries is strongly influenced by mountain biking, including some of the nation's most popular races and festivals, plus guiding services, touring companies, and hut-to-hut travel.

Colorado is truly an epicenter for the mountain bike industry, with almost 100 companies building and making mountain bike frames, components, accessories, and apparel. Many prominent outdoor companies that promote outdoor recreation and mountain biking are based here, including national and regional bicycling magazines and firms that deal in events marketing, public relations, advertising, and media services. Bicycling, in general, supports more than 60,000 jobs across the Rocky Mountain region (OIF 2006), with mountain biking comprising approximately 40 percent of that figure.

Mountain bicycling is an extremely popular sport nationally. According to the National Survey on Outdoor Recreation and the Environment (NSRE 2007), the sport attracts 47 million participants, making it more popular than golf, hunting, backpacking, or horseback riding.

Many young people enjoy mountain biking, helping counter a distressing trend toward youth obesity and inactivity. The Outdoor Foundation's Outdoor Recreation Participation Study (2008) shows that overall youth (ages 6 to 17) participation in the outdoors declined 16.7 percent over the last three years. However, youth participation in mountain bicycling, hiking, backpacking, kayaking, and skiing all showed increases. This research affirms that outdoor activities like bicycling and hiking are popular, accessible, and often lead to participation in other healthy activities.

Mountain Bicyclists Are Enthusiastic Supporters of Public Lands Protection

Mountain bicyclists are passionate about the outdoors. We believe in managing public lands as a public trust and a priceless national treasure. We cherish the places where we can enjoy epic forays into the backcountry. We love trails and are among the first to volunteer to build and repair them. We share a concern with other trail users that the pressures of growth and industry threaten the qualities that make our favorite rides special.

That's why Wilderness designations are such a difficult issue for us. Existing Wilderness protections near trails can contribute to the peace, quiet, and solitude that make them special. At the same time, Wilderness expansions and new Wilderness designations block access to those same trails.

Fortunately, we know that land protection proposals can be crafted to include mountain biking, as they have been in Colorado, Washington, Oregon, California, Georgia, and Virginia. IMBA champions the strategy of combining Wilderness protections with other land protection solutions—such as National Scenic Areas, Recreation Areas, or Protections Areas. In this

manner we can both safeguard the land and preserve local mountain biking traditions. We believe that there are many tools in the toolbox to protect public lands. Preserving Colorado public lands doesn't have to be at the expense of mountain bicycling.

We believe there are significant improvements that can be made to the bill. In its present state, the legislation fails to acknowledge the large number of bicycle trails that would be closed by Wilderness boundaries. We believe that the addition of more companion designations, and corresponding adjustments to Wilderness boundaries, would create a better, more inclusive, bill.

Areas Appropriate for Wilderness in H.R. 4289

IMBA can support roughly 216,958 acres for Wilderness in the Colorado Wilderness Act of 2009. IMBA believes that these parcels are appropriate for Wilderness: Badger Creek (25,229), Beaver Creek (38,378), Browns Canyon (20,025), Cross Canyon (25,947), Deep Creek (20,843), Flat Tops (16,427), Grand Hogback (11,701), Little Bookcliffs (30,557), Maroon Bells (316), McIntyre Hills (17,318), Platte River (33), Powderhorn (3,306), and West Elk (6,878).

Areas That Need to Be Further Examined for Partial Wilderness, Companion Designations, and Boundary Adjustments

Large segments of the following parcels could also be supported as Wilderness but IMBA needs to work with Congresswoman Degette and local stakeholders to determine if boundaries need to be redrawn for existing roads and trails or if a companion designation would be a more appropriate land protection.

Further research and ground-truth efforts need to be conducted for the trails in these areas: Bull Gulch (15,155), Castle Peak (16,263), Demaree Canyon (25,881), Dolores River Canyon (41,133), Granite Creek (14,089), Norwood Canyon (13,288), Pisgah Mountain (15,679), Redcloud Peak (38,594), South Shale Ridge (27,569), Table Mountain (27,888), Weber-Menefee Mountain (14,598).

IMBA can support the Snaggletooth Wilderness (32,050), so long as the boundary of the Wilderness respects the existing Snaggletooth Trail important to local bicyclists. The current map is unclear and it is difficult to determine if this trail is in or outside of the Wilderness boundary.

Areas Important to Bicyclists That Could Be Protected Through A Companion Designation

There are many trails that would close under H.R. 4289 and areas we cannot support for Wilderness: Bangs Canyon (21,110), Grape Creek (44,372), Handies Peak (72,397), McKenna Peak (33,467), The Palisade (26,914), Roubideau (22,604), Sewemup Mesa (65,448), Thompson Creek (25,285), and UnawEEP (39,392).

IMBA estimates that close to 200 miles of trails or dirt roads will close to bicycle use in the bills current form. In some places a simple boundary adjustment or non-Wilderness corridors would allow for continued use. In other places, trails split parcels and a companion designation may be more appropriate, such as a National Protection Area, National Conservation Area, or National Scenic Area. In all instances, IMBA wants to make sure the land is still protected. We hope to

work will the bill's sponsor and the committee to write a robust protection that complements some of the key Wilderness areas.

Bangs Canyon

IMBA would not support Wilderness for Bangs Canyon. This parcel provides mountain bike access on dirt roads accessible for winter riding around Grand Junction as well as the nationally famous Tabeguache Trail.

Grand Junction is a world-renowned mountain bicycling destination. This area hosts an abundance of year round singletrack opportunities. IMBA's local club, the Colorado Plateau Mountain Bike Trail Association (COPMOBA), is a dedicated group of volunteers who organized in 1989 and were recently inducted into the Mountain Bike Hall of Fame for their stewardship. This group includes a board of directors and numerous member volunteers who work with land managers to protect resources in the Grand Junction, Fruita, Gateway, and Montrose areas. This group has been dedicated to maintaining trails such as the Tabeguache, Paradox, and Kokopelli trails.

The proposed Bangs Canyon parcel would close approximately five miles of the Tabeguache Trail. This trail, in its entirety, is 144 miles from Montrose to Grand Junction and was put together by the COPMOBA in 1990. The Tabeguache is also part of the three legs of the Grand Loop, a large triangle formed by the Kokopelli and Paradox trails. The closure would bi-sect this important long-distance trail and prevents completion of the Grand Loop. COPMBA has been working with the Grand Junction Bureau of Land Management Field Office to re-route this section of trail, but nothing official has come of the process.

Grape Creek

IMBA would not support Wilderness for the Grape Creek parcel as local bicyclists of the Colorado Springs (Medicine Wheel Trail Advocates) and Canyon City (Lower Arkansas Mountain Bicycling Association) enjoy several trails that would be closed under the proposal: Bear Gulch Trail, Tanner Peak Trail, and Stultz Trail. The Grape Creek area is featured in a well-known guide, *Mountain Biking Colorado Springs Guide Book*, by David Crowell (Falcon Publishing).

Handies Peak

IMBA does not support the Handies Peak Wilderness proposal. This proposed area includes the Colorado Trail, which is of critical importance to mountain bikers. It is a premier backcountry singletrack experience and certain segments are an international destination. Many bicyclists put this long-distance trail on their "must-ride" list of epic backcountry rides and aspire to bike the entire distance from end to end. There is a tremendous amount of Wilderness already in the area that restricts local bicyclists. The CO Wilderness Act of 2009 would needlessly close a critical segment (#23) that would make bicyclists detour around yet another parcel of Wilderness in the Handies Peak Proposed Wilderness. Mountain bikers love this trail and would be upset to be excluded.

Already there are several Colorado Trail segments that require challenging and onerous reroutes.

The Lost Creek Wilderness is a good example. Here, bicyclists must bike 71.6 miles on state highways and dirt roads to bypass roughly 20 miles of trail with no alternative trail route available. This is an enormous burden on our community. If segment #23 were closed, this would require a similar problem for this segment and require an extensive reroute for mountain bikers to stay outside of Wilderness. Other trails that would be affected in this area are West Lake Creek and Pole Creek.

McKenna Peak

IMBA would not support Wilderness for major segments of McKenna Peak. There are several dirt roads that bicyclists use to view wild horse populations in the Spring Creek area.

The Palisade

IMBA would not support the Palisade (26,914) proposal. With mountain biking on the rise in Gateway, we need to keep in mind amenities that go along with the sport such as camping. The Wilderness boundary cuts off small roads that allow for camping in the area. There is limited camping in the canyon and this area has provided bikers with numerous camping opportunities.

Roubideau

IMBA does not support the Roubideau Wilderness proposal. This section bisects a very popular long distance trail, the Tabeguache trail. As previously mentioned in the Bangs Canyon proposal, this trail is in its entirety is 144 miles from Montrose to Grand Junction. The Tabeguache is also part of the three legs of the Grand Loop, a large triangle formed also by the Kokopelli and Paradox trails.

The proposal would eliminate the #3 Transfer Road section (7.1 miles) and #4 Roubideau Trail section (21.3 miles). This trail offers an experience for riders exploring diverse geologic areas and applying remote backcountry riding skills, a unique trail system for mountain bikers. Trail surface consists of gravel road, maintained dirt road, primitive 4WD paths, and singletrack.

Sewemup Mesa

Sewemup Mesa is another area with an important trail to bicyclists and we ask there be boundary adjustments for this parcel. Sewemup Mesa is a wonderfully wild area, but H.R. 4289 goes outside the original BLM Wilderness Study Area proposal and would impact access to existing jeep roads near the Paradox Trail. The 100-mile Paradox Trail follows the stunning Paradox valley from Colorado's high plains to Moab's desert along trails and jeep roads and was put together by the COPMOBA in 1995. Included in this proposal are a number of short sections of road and trail that mountain bicyclists currently use. Beehive Canyon is also an area that has a short section of singletrack that is important to bikers. The boundary could be adjusted to exclude these areas that our constituents find important.

Thompson Creek

IMBA does not support Wilderness designation for Thompson Creek. This parcel borders the town of Carbondale, a destination for mountain biking and home to a very active IMBA club, the

Roaring Fork Mountain Bike Association. There are many important trails in this parcel including Tall Pines and Braderich Creek trails that would close under the current proposal. IMBA suggests a companion designation for this unit. We cannot support the permanent restriction of mountain bike access to this areas urban trail development.

UnawEEP

IMBA would not support the UnawEEP parcel for Wilderness designation. In the UnawEEP area there are currently trails used by mountain bikers, which include: Lower Ute Creek (2.5 miles), Ute Creek #608 (7.7 miles), and Snowshoe #607. Although it is only 1.5 miles long, Snowshoe #607 is an important connector trail. This area provides opportunity for loop trail rides in the area. There are currently three trails that were closed in 2002, but COPMBA has been working with the U.S. Forest Service to reopen these three trails: #601, #654, and #650. A Wilderness designation would eliminate the option of allowing bikes.

H.R. 4289 Needs More Community Vetting

IMBA hopes to work with Congresswoman Degette on conducting town hall meetings across the state to better collaborate with community groups affected by the legislation. Colorado has a long history of protecting public lands through inclusive processes that bring many interest groups to the table. We believe this bill needs to go through more community stakeholder meetings to make sure those closest to the land have been involved in drawing the boundaries.

IMBA recently worked with Colorado Congressman John Salazar (D-3) over the course of several years to craft H.R. 3914 the San Juan Mountains Wilderness Act of 2009, which we support. The bill includes numerous boundary adjustments for critical trails and dirt roads that our community uses in southwest Colorado. Further, the legislation includes both Wilderness and a Special Management Area that allows our historical use to continue on one trail system. The bill recognizes the importance of outdoor recreation and also allows the Hard Rock trail running race, and heli-skiing and snowboarding, to continue on these newly protected lands.

IMBA also worked collaboratively for years with then U.S. Representative Mark Udall (D-2) on shaping the James Peak Wilderness and Protection Area (H.R. 1576, PL 107-216 or 16 USC 5391). James Peak is another great example of complementing Wilderness through a companion designation of a National Protection Area, as it allows for bicyclists to continue riding an important, high-alpine trail.

Last year, IMBA supported the Dominguez-Escalante National Conservation Area and Dominguez Canyon Wilderness Area Act (S. 3065) after working with then Colorado U.S. Senator Ken Salazar to draft a proposal that included a companion of a National Conservation Area, which protected public lands and allowed our traditional use along many important trails.

IMBA is now working with Colorado Congressman Jared Polis (D-2) and the Hidden Gems coalition to craft a robust protection measure that includes Wilderness and a companion designation for Summit, Pitkin, Eagle, and Gunnison counties.

Forest Service Needs Better Management Tools for Human-Powered Recreation

IMBA believes the time has come for the Forest Service and Congress to consider another robust public land protection that gives clear guidance to the Forest Service for management. The Forest Service has specific regulations and management guidance for Wilderness, and needs better direction for companion designations.

IMBA is asking the Forest Service to help address the disparities that unfairly restrict mountain bicycle access. Although research shows that the impacts of bicycling are much less than those caused by motorized recreation, Forest Service regulations often equate bicyclists to motorized users and inappropriately group bicycles into the category of “motorized and mechanized” in their analysis. Too often, environmental and social science research is based on the impacts of motorized users, ignoring the need for a unique analysis specific to bicycling as a low-impact, human-powered activity. The Forest Service needs better management tools to address our sport.

IMBA believes it is important that this committee consider the congressional intent of the Wilderness Act and the inspiration behind that important moment in history. It is clear from the congressional record and study group reports, which recommended the parameters of the legislation, that even back in the late 1950’s, Americans were becoming too sedentary. The pressures of development were starting to erode these treasured areas and Congress wanted places people were required to get to under their own human-power. No people movers, no motors, and no mechanized transport—which the Forest Service in 1966 defined as, “propelled by a non-living power source” (36 CFR § 293.6). Since bicycles are obviously powered by a living power source, they were not contemplated by the Act. IMBA believes the congressional intent was to prohibit motorized vehicles completely and any non-motorized but non-human powered devices used to deliver people or supplies. Examples of the latter would include animal-powered wagons and mining carts.

In addition, Congress has recognized that bicycling is compatible with Wilderness values in the Rattlesnake Wilderness Act (1980) where it found that "bicycling" was a form of "primitive recreation" fitting for Wilderness.

"The Congress finds that—(1) certain lands on the Lolo National Forest in Montana have high value [as Wilderness]. This national forest area has long been used as a wilderness . . . as a source of solitude . . . and primitive recreation, to include such activities as hiking, camping, backpacking, hunting, fishing, horse riding, and bicycling. . . ."

I mention this to further dispel the idea that bicycles are an incompatible use of pristine places. Almost 30 years have passed since the first invention of the mountain bike and twenty-five years since the 1984 Forest Service regulatory ban of bicycles in Wilderness. We have learned a lot in the last 30 years on recreation ecology and management of mountain bikes.

We now know that the resource impacts of mountain biking are similar to hiking and much less than horses, two allowed uses of Wilderness. For example, a study published by Dr. Jeffrey L. Marion, *Assessing and Understanding Trail Degradation: Results from Big South Fork National River and Recreational Areas*, United States Department of Interior (2006), demonstrates that mountain bike trails were the least eroded, narrowest, and least muddy of the trails studied (.6 percent), including hiking (1.4 percent), equestrian (9.0 percent), ATV (24.0 percent) (See also

Attachment B - *Environmental Impacts of Mountain Biking: Science Review and Best Practices*, Jeff Marion and Jeremy Wimpey). We have also learned a tremendous amount about the management of mountain bikes and shared-use trails and have hundreds of examples across the country where hikers, bicyclists, and equestrians successfully share trails. (See Minimum Tool Rule, Attachment B).

Relying solely on Wilderness designations has other drawbacks. The Forest Service is restricted in Wilderness as to what tools they can use for forest restoration, watershed protection, forest thinning, and mechanized trail building. Further, Wilderness prevents fixed anchors for climbers and backcountry structures such as yurts that back-packers and cross-country skiers would appreciate.

At a time when every federal public land agency has initiatives to get more kids exercising, into the woods, and out experiencing their public lands, why would we exclude bicyclists? Bicycling creates future public land stewards; it makes national parks and national forests more relevant to today's youth.

As a community, mountain bikers can add a valuable new voice to campaigns to protect America's forests, water, wildlife, and scenic landscapes. Ask any mountain biker what they think about public land protection. They absolutely do not want the lands around their trails mined, developed, or turned into road systems. The fervently agree in protecting public lands.

But the one-size fits all approach of Wilderness is no longer an adequate solution. Mountain bikers are slowly changing the national conversation on public land protection and introducing companion designations in legislation around the country. We hope to work with Congress, the Forest Service, Bureau of Land Management, and others to write better public land protections that are inclusive of our human powered use.

In closing, I want to emphasize that IMBA has inspired, trained, and organized one of the most committed volunteer trail corps in this nation's history. We're proud that our members have embraced the ethic of trail stewardship so wholeheartedly and we will continue to promote riding that respects all trail users. We will continue to protect the water, wildlife, clean air, and backcountry landscapes that are the foundation of America's matchless outdoor recreation heritage.

Thank you again for the opportunity to present this testimony.

ATTACHMENT A

Summary Excerpt: Environmental Impacts of Mountain Biking: Science Review and Best Practices.

By Jeff Marion and Jeremy Wimpey

Mountain biking is still a relatively new activity whose environmental impact and contribution to trail degradation is poorly understood. As with all recreational pursuits, it is clear that mountain biking contributes some degree of environmental degradation. In the absence of adequate research, land and trail managers have frequently been cautious, implementing restrictive regulations in some instances (Edger 1997). Surveys of managers have shown that they frequently perceive mountain biking to be a substantial contributor to trail degradation but lack scientific studies or monitoring data to substantiate such concerns (Chavez and others 1993; Schuett 1997). In recent years, however, a small number of studies have been conducted that help clarify the environmental impacts associated with mountain biking. This article describes the general impacts associated with recreational uses of natural surface trails, with a focus on those studies that have examined mountain biking impacts.

[...]

Conclusion

While land managers have long been concerned about the environmental impacts of mountain biking, there are still very few good studies published in peer-reviewed journals. White and others (2006) and Hendricks (1997) note that the majority of mountain biking research has focused on social issues, such as conflicts between trail users. As a consequence, the ecological effects of mountain biking on trails and natural resources remain poorly understood.

Still, an emerging body of knowledge on the environmental impact of mountain biking can help guide current management decisions. All of the existing scientific studies indicate that while mountain biking, like all forms of recreational activity, can result in measurable impacts to vegetation, soil, water resources, and wildlife, the environmental effects of well-managed mountain biking are minimal.

Furthermore, while the impact mechanics and forces may be different from foot traffic, mountain biking impacts are little different from hiking, the most common and traditional form of trail-based recreational activity.

Key observations about the environmental impacts of mountain biking:

1. Environmental degradation can be substantially avoided or minimized when trail users are restricted to designated formal trails. Many studies have shown that the most damage to plants and soils occur with initial traffic and that the per capita increase in further impact

diminishes rapidly with increasing subsequent traffic. Many environmental impacts can be avoided and the rest are substantially minimized when traffic is restricted to a well-designed and managed trail. The best trail alignments avoid the habitats of rare flora and fauna and greatly minimize soil erosion, muddiness, and tread widening by focusing traffic on side-hill trail

alignments with limited grades and frequent grade reversals. Even wildlife impacts are greatly minimized when visitors stay on trails; wildlife have a well-documented capacity to habituate to non-threatening recreational uses that occur in consistent places.

2. Trail design and management are much larger factors in environmental degradation than the type or amount of use. Many studies have demonstrated that poorly designed or located trails are the biggest cause of trail impacts. As evidence, consider that use factors (type, amount, and behavior of trail visitors) are generally the same along the length of any given trail, yet there is often substantial variation in tread erosion, width, and muddiness. These impacts are primarily attributable to differences in grade and slope alignment angle, soil type and soil moisture, and type of tread construction, surfacing, and drainage. This suggests that a sustainable trail that is properly designed, constructed, and maintained can support lower-impact uses such as hiking and mountain biking with minimal maintenance or degradation.

3. The environmental degradation caused by mountain biking is generally equivalent or less than that caused by hiking, and both are substantially less impacting than horse or motorized activities. In the small number of studies that included direct comparisons of the environmental effects of different recreational activities, mountain biking was found to have an impact that is less than or comparable to hiking. For example, Marion and Olive (2006) reported less soil loss on mountain bike trails than on hiking trails, which in turn exhibited substantially less soil loss than did horse and ATV trails. Similarly, two wildlife studies reported no difference in wildlife disturbance between hikers and mountain bikers (Taylor & Knight 2003, Gander & Ingold 1997), while two other studies found that mountain bikers caused less disturbance (Papouchis and others. 2001, Spahr 1990). Wilson and Seney (1994) found that horses made significantly more sediment available for erosion than hikers or mountain bikers, which were statistically similar to the undisturbed control.

One final point to consider, however, is that mountain bikers, like horse and vehicle users, travel further than hikers due to their higher speed of travel. This means that their use on a per-unit time basis can affect more miles of trail or wildlife than hikers. However, an evaluation of aggregate impact would need to consider the total number of trail users, and hikers are far more numerous than mountain bikers.

Mountain Bike Management Implications

So what does this mean for mountain biking? The existing body of research does not support the prohibition or restriction of mountain biking from a resource or environmental protection perspective. Existing impacts, which may be in evidence on many trails used by mountain bikers, are likely associated for the most part with poor trail designs or insufficient maintenance.

Managers should look first to correcting design-related deficiencies before considering restrictions on low-impact users. By enlisting the aid of all trail users through permanent volunteer trail maintenance efforts, they can improve trail conditions and allow for sustainable recreation.

ATTACHMENT B

Minimum Tool Rule

THE MINIMUM TOOL RULE

Public land managers who seek to provide high-quality recreation experiences on trails face the challenge of increasing user conflicts. Successful resolution of this problem depends on the management approach. The International Mountain Bicycling Association recommends that managers adopt the "minimum tool rule": Use the least intrusive measures that will solve the problem.



This approach is explained well in "Conflicts on Multiple-Use Trails: Synthesis of the Literature and State of the Practice," by Roger Moore (1994):

The nature of the recreation experience limits the manager's options in addressing the potential negative impacts of trail use. Freedom, and freedom of choice in particular, are essential for high-quality outdoor recreation on and off trails. Multiple-use trail managers must be sensitive to this fact and avoid restriction and manipulation whenever possible. The 'minimum tool rule' proposed by Hendee, Stankey, and Lucas (1990) for wilderness management is an appropriate guideline for the management of most multiple-use trails as well. They advocate using the least intrusive measures (whether physical or managerial) that will still achieve area objectives. This sensitivity is critical to maintaining the freedom and naturalness so important to most trail-based recreation.

Some managers, unaware of this principle, have fallen into a more simple and less successful approach. Andy Kulla, a recreation manager in the Lolo National Forest of Montana, calls it "Ignore or Restrict: ... New uses are ignored until they conflict with a traditional established use and then are managed by prohibition or restriction... The manager then tries to resolve a conflict between two or more often very angry and alienated user groups. By then it's often too late... Positions are taken, heels are dug in, and emotions rather than rational thought dominate the negotiations."

Kulla developed a list of possible management actions and arranged them according to the minimum tool rule. His hierarchy of solutions offers excellent guidance to all recreation managers.

REFERENCES:

Moore, Roger, "Conflicts on Multiple Use Trails: Synthesis of the Literature and State of the Practice," US Federal Highway Administration, Report No. FHWA-PD-94-031, 1994.

Kulla, A., "A New Perspectives Approach to National Forest Recreation and its Application to Mountain Bike Management." Unpublished paper prepared for Utah State University's Professional Development for Outdoor Recreation Managers/Planners Shortcourse, 1991.

A hierarchy of options for managing trail user conflict



by Andy Kulla, USDA Forest Service - Lolo National Forest
1994

Listed from most preferable to least preferable.

Signing

Urge cyclists to stay on routes, slow down, limit party size, consider other users, etc. voluntarily through signing. Use signs to make sure that cyclists who care, but don't know proper etiquette, have enough information to monitor themselves. Present a good map depicting areas that are open, closed, congested, or whatever.

Peer Pressure

Encourage your friends and other cyclists to patrol their own ranks in a positive way.

Education

Work with bike shops, local clubs, universities, other user groups, city bike programs, mountain bike outfitters and guides, and other interested parties to educate bicyclists about low impact use, etiquette, and consideration for other users. Develop posters, brochures, and a logo or trademark to become a recognized reminder or symbol of considerate cycling.

Use Closed Roads

Emphasize and encourage use of closed roads as bike routes because single track trails become congested quickly and have high potential for conflict.

Soft-Cycling Training Programs

Develop training programs on low impact cycling for adults and school children to be presented by clubs, organizations, bike shops.

Trail Design

On new trails or trails that can be reconstructed, include design features that restrict speed and enhance sight distance, and build wide, or pull-out, sections to facilitate safe passing of cyclists, horses, and hikers.

Barriers To Control Speed

Leave or install barriers in the trail to control speed. Things like protruding rocks, roots, bumps, sharp curves, down trees, speed barriers and waterbars will help.

Requested Walking Zone

Request or require that cyclists walk their bikes in certain areas where speed, recklessness, or congestion are potential problems.

One-Way Only

Designate the direction of travel on trails with very heavy use to avoid the potential for head on collisions.

Post Speed Limits

Set maximum allowable or recommended speeds for cyclists. Encourage voluntary compliance or involve local cyclists in positive enforcement. Encourage speeds that allow a cyclist to stop in less than half the distance they can see.

Patrolling

Use properly trained volunteer groups to patrol and talk with cyclists.

Restrict Cyclists By Time

Allow for mountain bike use only at certain times of day.

Restrict Cyclists By Day

Allow for mountain bike use on only certain days when other use may be at lower levels. (odd/even days or weekend/week day)

Separate Sections

Construct separate routes for mountain cyclist use where there is the greatest congestion (like at trailheads).

Construct Separate Routes

Construct separate trails for mountain bikes where there is strong user support (like money and/or labor) and where no other solutions are feasible.

Zoning

Close certain areas to cycling and then allow and encourage that use in other designated areas. This method is dependent on having other areas available and usable.

Close Area To Cyclists

This should be only used as a last resort after other efforts have proven ineffective.