

South Hills Trails Plan



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Table of Contents

I. Introduction	3
Purpose and Need of the Plan	3
Description of the Planning Area.....	4
Trail Management.....	4
Trail Planning and Coordination.....	6
II. State of the Trails - 2013	7
III. Challenges and Opportunities	8
Challenges.....	8
Opportunities.....	10
IV. Goals and Objectives	11
V. Plan Recommendations.....	12
Overall recommendations (non-site specific):.....	12
Maintenance and Construction	12
Trail System Design and Character	13
Special Trails	13
Volunteers and User Groups.....	13
Agency Cooperation	14
Private Property Issues.....	14
Enforcement and Patrol.....	14
Trailheads.....	14
Trail Signs.....	15
Trail Closures.....	15
Map/Brochure	15
Pets.....	15
Wildlife	15
Protection and Interpretation of Pre-historic and Historic Resources	15
Weeds.....	16
New Subdivisions	16
Trail User Conflicts.....	16
Site-Specific Recommendations.	16
Major Trail Maintenance / Improvement.....	17
Mt. Helena Park	17
Wakina Sky.....	18
Rodney Ridge.....	18
Mt. Ascension Park.....	19
East Side.....	20
Remote Trails.....	20
New Trails – Specialty.....	21
<u>Figure 1. South Hills Trail Plan Study Area Map.....</u>	<u>23</u>
Appendix A: Trail Standards	A-1
Appendix B: Letter of Decision Regarding Trails On USFS Lands in the South Hills.....	A-2

I. Introduction

Purpose and Need of the Plan

Among Helena's most notable natural features are the foothills adjacent to downtown and along the southern periphery of its residential areas. The majority of this area is designated as public non-motorized open space properties, managed by local and federal agencies. The combination of interesting topography and extensive public lands results in a landscape with high potential for recreational trails. The demand on the trail system stems from the proximity of these trails to the city of Helena and the Helena valley which contain a combined population of 63,395 residents, according to the 2010 census. The recreational trail system is an amenity that many Helena area residents cherish and use daily, for a variety of activities. This highly regarded trail system is also attracting users from out of the area and increasingly becoming a resource that local businesses are utilizing to stimulate growth in the tourism and recreation industries.

It should be noted that the public utilizes the trail system for both recreation and transportation purposes. The South Hills provide multiple opportunities for recreation and its trail system is integral to those uses. The connectivity provided by the trail system is acknowledged as it can link to the trails (existing and proposed) in the Montana City area (northern Jefferson County), the East Helena area (PPLT's Greenway Planning Project), and the Continental Divide Trail to the west. Other trail networks in the vicinity include the Scratchgravel Hills, the Helena Valley, the Sleeping Giant area, and the area of the McMaster Ranch and other public lands in the eastern part of the Valley (Spokane Hills). In addition, the South Hills Trail System connects to designated bike trails within the City of Helena and its nearby environs.

Despite the relative success of the South Hills Trails System, the coordinated development and management of these trails could not be effectively accomplished without the existence of a master trails plan, referred to as the South Hills Trails Plan (SHTP). The predecessor to this version of the SHTP, the 2003 South Hills Trails Plan, incorporated the identification of potential trail corridors, site analyses for new trails and trail maintenance scheduling into a comprehensive plan for the South Hills. The need for such a plan is clear; in 2003 only a few of the mapped trails in the South Hills were designated as recognized trails. As of 2013, there were 83 trails totaling 68 miles that have been designated as official trails by the City of Helena, the Forest Service and/or the Bureau of Land Management.

Comprehensive trail planning has also helped to identify necessary trail modifications such as trail closures and reroutes, as well as on-going maintenance issues. Although much progress has been made since 2003, the SHTP presents an over-arching planning procedure that is necessary for identifying sections of trail that require rerouting or closure, emergency maintenance activities, as well as managing routine maintenance cycles for all trails. This plan also identifies and evaluates corridors for new trail development, opportunities for looped trails and connectivity or linkage with other trails, and provides for increased user safety. Identifying potential trail corridors in coordination with multiple agencies and private landowners is crucial to the development process.

This plan is to provide a framework for designing and implementing non-motorized trail construction or maintenance projects. Components of this plan include procedures for

establishing recommendations for trail expansion areas, trail closures (decommissioning), monitoring and maintenance guidelines and a basis for public input on future trail projects. This document is designed to serve as a dynamic planning tool that would be updated and/or amended to incorporate new trail issues or objectives as they arise.

Description of the Planning Area

As the title of this plan indicates, the scope of this document encompasses the foothills and mountains immediately south of Helena. These lands are dominated by conifer forests with meadows of native grasslands scattered on slopes and ridges. In general, the planning area covered in this plan extends from the Helena urban area as the northern boundary, over to the Colorado Gulch watershed on the west, down to the ridgeline that divides Lewis and Clark from Jefferson counties on the south and then down Holmes Gulch to the junction with Interstate 15 on the east (Figure 1).

The study area is approximately 45 square miles in size and encompasses lands owned by the City of Helena (City), the U.S. Forest Service - Helena National Forest (USFS), U.S. Bureau of Land Management (BLM), the State of Montana (DNRC), and private parties (individuals and corporate entities). While this plan focuses primarily on public lands, some existing and future trails will cross private lands and thus are discussed in this plan.

The terrain within the planning area consists of a series of rugged rolling hills dissected by dry gulches. Vegetative cover includes dense coniferous forest to open grassy meadows. The moist gulch bottoms are interspersed with deciduous trees and shrubs. These hills offer excellent views of the surrounding lands, including spectacular views of the State Capital, the Helena Valley and surrounding mountain ranges. The elevation of the study area ranges from about 4,100 feet above sea level in downtown Helena to nearly 6,500 feet on top of Skihi Peak on the southern edge of the planning area.

Remnants of Helena's pre-history and history are scattered throughout the area including Native American sites, mine ruins, limestone kilns, city dumps, flumes and historic wagon roads. Many of these industrial ruins located on public and private lands are currently listed, or are eligible for listing, in the National Register of Historic Places—a listing of significant heritage properties maintained by the Department of Interior. Protecting the integrity of these ruins from vandalism, destruction and natural degradation is important to many Helena area residents. At the same time, some of these ruins offer opportunities for cultural education and interpretation as part of the trail system.

Trail Management

In general, the most heavily used trails are located near residential areas, such as Mt. Helena and Mt. Ascension; or are located immediately outside of city limits, such as Davis Gulch, lower Oro Fino Gulch and lower Grizzly Gulch. Most of these heavily used trails are located on City of Helena Open Space Lands, although areas of Forest Service lands such as Rodney Ridge and Wakina Sky are also heavily used by bikers, runners, and hikers. The intensity of trail use, especially hiking and dog walking, tends to decrease as one moves further south from the City Limits into the South Hills. Types of trail use and trail dimensions also change with increasing

distance from town, with mountain biking and trail running becoming more popular than most other trail uses on remote trails.

As a result of the fractured land ownership within and around Helena, collaboration between multiple organizations is required to determine the responsibilities of each entity associated with the South Hills trails. Below is a short description of the primary responsibilities for each group and how trail projects are coordinated. The ownership of each entity is shown on the South Hills Trail System Map, which was updated and published in the Spring of 2015. A summary of the total miles of trails located on the various landowners in the South Hills is shown on Table 1 below.

Table 1. Total Length of Trails by Land Ownership in South Hills, 2013.

Land Owner	Trail Length (miles)
City of Helena	32.5
US Forest Service	25.5
Private	9.5
Bureau of Land Management	0.6
TOTAL	68.0

City of Helena

The City of Helena manages public lands and trails through the Open Lands and Trail Division as part of the Parks and Recreation Department. These lands include Mt. Helena City Park, Mt. Ascension City Park, as well as numerous smaller City Open Space lands such as Meatloaf Hill, Bompert Hill, Nob Hill and the Folf Course on Saddle Drive (see Figure 1).

In the spring of 2001 the City of Helena Parks Department contracted the Prickly Pear Land Trust as its trails coordinator and that relationship continues today. Tasks associated with this agreement include trail planning, trail construction and maintenance, organizing volunteer work events, grant writing and public outreach. Funding for PPLT’s work on City open lands was initially funded by the 1995 open space bond funds and is currently funded through an open space maintenance district established in 2007.

The beginning of trail development in Helena began with the protection of Mt. Helena as a city park in 1905, with 731 acres acquired between 1905-1976. Through several iterations of city planning on the lands surrounding Mt. Helena this city park eventually grew to encompass 911 acres, as of 2015. The City Commission passed Resolution 10961 (12-11-1995) addressing park uses. In 1999-2003, Mt. Ascension Park was added to the City of Helena Open Space lands encompassing 355 acres at the time of its adoption by the city. During that time the City Commission passed Resolution 11500 (4-24-2000) that addressed non-motorized use of the park. Through the combined efforts of the City of Helena and Prickly Pear Land Trust (PPLT) the total acreage of City of Helena Parks and Open Space lands as of 2015 is 1,862 acres. In 2014 (6-23-2014) the City Code (Ordinance 3195) was updated and included 7-12-3, a regulation that

restricted the natural park areas to non-motorized uses (except as specifically authorized), a result of resource degradation and associated costs.

US Forest Service – Helena National Forest – Helena Ranger District

The Helena Ranger District of the US Forest Service manages approximately one million acres of land in west-central Montana that stretches from the Scapegoat Wilderness in the north to the southern extent of the Big Belt Mountains. In the South Hills of Helena the US Forest Service lands include the areas around the Rodney Ridge trails, the Wakina Sky trails and most of the Mt. Helena Ridge trail – including the trailhead near Park City. The South Hills trails represent a small percentage of the recreational trail mileage in this district, but account for a relatively high concentration of trail usage. Around 2000, the Helena Ranger District designated the South Hills area with a prescription allowing only non-motorized use on the trails. Without motorized use, many of the former motorized trails became popular for biking and hiking and provided opportunities for restoration of highly eroded and unsustainable routes. In 2003 the Clancy-Unionville Vegetation and Travel Decision was signed and provided for non-motorized travel in certain areas.

In 2010, the US Forest Service completed an inventory and Environmental Assessment of the existing trails within the South Hills in the process of issuing a District Decision memo (as shown in Appendix B) that formally added these trails to the trail inventory. Following that decision, PPLT partnered with the USFS to coordinate trail projects on Forest Service lands in the South Hills. Funding of the ongoing trail coordination work is accomplished in part through Upper Missouri Resource Advisory Committee (RAC) grants.

Bureau of Land Management

The Bureau of Land Management (BLM) – Butte Field Office is responsible for managing isolated parcels of land scattered both within and outside of Helena city limits. BLM lands are generally grouped around the junction of Oro Fino Gulch with Grizzly Gulch as well as a few parcels interspersed with private property on the northern portion of Rodney Ridge. Outside the SHTP study area, the BLM also manages property in the Scratchgravel Hills, Spokane Hills and North Hills areas around the Helena valley. The BLM previously completed a site assessment and granted a trail easement for a portion of the Rodney Ridge Trail. A comprehensive trail and recreation planning effort for the BLM lands in the area is scheduled to begin in 2017.

Other landowners

The State of Montana is another landowner in the South Hills and its lands are managed by the Department of Natural Resources & Conservation (DNRC). Its principal ownership in the planning area is located west of the City of Helena. Numerous private lands are also located within the planning area, some of which are undeveloped and/or present opportunities for legal alignment and trail development.

Trail Planning and Coordination

Numerous regional planning efforts have previously considered open space planning and trail development in the South Hills. In 1995, the City of Helena and the Helena National Forest prepared the *Mount Helena Management Plan*, which focused on the lands within Mt. Helena City Park as well as the Forest Service Lands along the Mt. Helena Ridge National Recreation

Trail. The 1998 *Comprehensive Parks, Recreation and Open Space Plan* commissioned by the City of Helena and Lewis & Clark County focused mainly on public parks.

In 1995, Helena voters approved a \$5 million bond to fund the acquisition and management of open space and the construction of parks. The bond funding decisions were guided by the Open Space Bond Advisory Committee (OSBAC). With its open space holdings nearly doubling in four years, the City decided to dedicate a portion of the remaining open space funds towards an Open Space Management Plan. In early 2001, a volunteer committee, named Helena Open Lands Management Advisory Committee (HOLMAC), agreed to hire and guide a consultant through the Management Plan effort. In 2004 a Final Open Space Management Plan was adopted by the City of Helena to guide resource management, including recreational trails, on Helena Open Space lands. This South Hills Trail Plan prepared by the Prickly Pear Land Trust (PPLT) will serve as a sub-plan to the Open Space Management Plan. There may be some overlap between the two plans on some issues, but generally this plan will address issues related directly to trails.

Since many of the trails in the South Hills cross borders between federal, city and private lands different procedures must be incorporated into any trail work or planning, depending on land ownership. Each land management agency has contracted or partnered with the PPLT as a third-party entity to coordinate and/or manage trails. In this role PPLT is also charged with the task of periodically developing and updating this comprehensive trail management plan. Implementation of the South Hills Trail Plan occurs through specific contracts and agreements. PPLT leads a Trails Committee that acts as a sub-committee to HOLMAC and makes recommendations to HOLMAC for trail related maintenance and construction activities. This is an excellent forum for coordination/collaboration among agencies, local governments, private entities and user groups.

The trail planning process is designed to provide an opportunity for public input using either the National Environmental Policy Act (NEPA) for projects on federal lands (USFS or BLM), or projects approved by local oversight committees (HOLMAC) on City of Helena Open Space lands. These entities each have established procedures for considering public input when developing land management recommendations.

II. State of the Trails - 2013

Trails in the planning area are popular for hiking, walking, jogging, mountain biking and if conditions allow, cross country skiing. In addition, horseback riding and hunting occur on Helena National Forest lands in the South Hills. Some people use the trails for an intense physical work out, while others are simply out to walk and enjoy nature. The diversity of potential opportunities is, in itself, a great amenity.

Helena's trail system has received regional and national attention as a destination for recreational trail use, particularly for mountain biking and trail running. One of the most recent acknowledgements was the 2013 designation of Helena as an International Mountain Biking Association (IMBA) "Ride Center". This designation highlights cities or recreational areas that offer extensive mountain biking options for various skill levels and riding styles. The trail running world has also begun to take notice of Helena's trail system. In 2009, Trail Runner magazine featured Helena in an article highlighting the top trail running towns in America.

While these accolades provide nice compliments for Helena and the nearby trails, they also magnify ongoing trail issues and introduce new trail demands and management issues. This plan is designed, in part, to identify and resolve components of trail management approaches that address issues such as sustainability, safety and connectivity.

Currently the trails in the South Hills trail system are dispersed across a variety of land ownerships (delineated previously in Table 1). The majority are single-track trails constructed specifically for non-motorized, recreational use. A smaller, but notable percentage of these trails are constructed from existing mining or logging roads to create two-track roads or single-track routes using one of the tracks. The smallest components of the trail system (based on overall trail mileage) are those consisting of flat, wide trails that would accommodate low-intensity/beginning trail-users or those using strollers and wheelchairs.

In the 2003 trails plan it was reported that the South Hills contained 75 miles of trails, however since that time several trails have been rerouted, combined with parallel routes or closed to minimize duplicate trails and/or improve trail sustainability. The consolidation of the trails was necessary in order to solidify the core of the existing trails systems prior to potential trails expansions. These changes to the core trails enabled managers to improve the effectiveness of ongoing trail maintenance and identify primary recreation corridors. “Social trails” exist that are not part of the approved trail system and no maintenance activities occur on these social trails.

At the time the 2003 Trails Plan was completed, very few trails that crossed private property were secured with trail easements or formal landowner agreements. In some areas, this remains true today, since several property owners simply acknowledge continued access via verbal agreements. The trails lacking formal, long-term access protection have been identified and formal access documentation has been discussed with many of the private landowners.

III. Challenges and Opportunities

As with any plan and any area there are challenges to planning and implementation, in addition to the inherent opportunities. In Helena’s South Hills, the challenges are not insurmountable and the opportunities are many.

Challenges

- a) *Many miles of trail to maintain:* Helena has many miles of trail but limited resources to maintain this vast network. Although increased trail expansion has been recommended as a priority by many trail user groups, maintenance of existing trails constitutes a large percentage of trail work projects.
- b) *Wildlife habitat to protect:* The South Hills are home to a number of animal species that depend on this habitat to survive. Any plans for new trail development must consider the project’s effects on wildlife habitat. (This topic is addressed further in the Helena Open Space Management Plan.)
- c) *Uncontrolled access:* Many unofficial trails in the South Hills are “social trails” that are created by people gaining access to the trail system from their back yards or unauthorized

locations. These trails are often redundant and/or poorly located, which causes erosion and potentially dangerous trail conditions.

- d) *Private property issues*: Some of the existing trails cross private property and lack formal agreements with the property owners. Without easements, agreements or outright purchase, these trails could be closed to public access at any time.
- e) *Multiple public ownerships*: Public ownership in the study area is dominated by the City of Helena and the Helena National Forest, although the Bureau of Land Management and State of Montana also own parcels within the planning area. Each agency has its own trail standards and management requirements, which requires substantial communication to complete trail projects that cross ownership boundaries.
- f) *Growing user base*: Trails in the South Hills are becoming more popular as people discover them. This creates more pressure and need to construct trailheads and provide directional signage as well as to maintain trails.
- g) *Need for funding*: In 1996, the citizens of Helena approved a \$5 million open space bond to help fund parks, open space and trails. While this funding was vital for the acquisition of open space parcels, the funding has been allocated, forcing City officials and PPLT to seek alternative sources of funding to pay for open space properties.
- h) *Noxious weeds*: While weeds are a separate management issue, trail building, usage and maintenance have implications on the proliferation of weeds in the South Hills. (This issue is addressed in the Open Lands Management Plan)
- i) *Public education*: Providing information to trail users regarding basic facts such as access points and trail routing remains an important and growing need. This information should also be expanded to include trail etiquette, rules for open space recreation and recommended uses on various trails.
- j) *Safety on roads*: Several of the trails in the South Hills utilize or cross roadways to provide trail access, or in some cases, constitute a segment of the trails. In either case, measures can be implemented to reduce trail-user and motor vehicle conflicts.
- k) *Forest health and hazard trees*: With the onset of the pine bark beetle outbreak in the mid-2000's, there was a high mortality rate in forests of the South Hills. Since then dead trees have continually fallen across trails causing a hazard situation for trail users. Agencies and volunteers have been very diligent about addressing these issues, yet it will be a continued challenge in the years to come.
- l) *Dogs off leash*: There have been several reports of incidents between dogs and human trail users and/or wildlife. The current city code requires dogs to be "on-leash" within 100 yards of trailheads and under voice control in other open space areas.

- m) *User Conflicts*: While South Hills trail users are by and large very considerate of each other, conflicts do arise. With increasing use from those living outside the community, conflicts may be more prevalent in the future. Education on trail etiquette should be a top priority on all printed materials including maps and at trailheads.

Opportunities

- a) *Abundant open space and existing trails*: Having many acres of public land and miles of trail so close to the downtown area is an amazing resource that Helena can be proud of. The development of a variety of trail types and difficulties can reduce the potential for conflicts between user groups.
- b) *Good volunteer participation*: Volunteers have been the lifeblood of trail maintenance in Helena. Non-profit organizations, businesses and user groups have been vital to mobilizing volunteers for trail workdays. However, there remains a need to develop a more diverse, more organized and more engaged volunteer network.
- c) *Willing and cooperating agencies*: Both the City and HNF have committed financial resources towards trails in the South Hills. They have also agreed to work together to implement the findings in this plan. The BLM and the DNRC should also be encouraged to participate on projects related to their respective ownerships.
- d) *Good access*: Access to public lands and trails is relatively easy. There are numerous points to access the trail system throughout the City and on County roads. The number and location of access points can periodically be evaluated to accommodate changes in populations and trail use.
- e) *Open Space Maintenance District*: The City has instituted this district to assist with the financial needs for management of the open lands including trail projects.
- f) *Historic and Cultural Resources*: There are numerous opportunities for interpretation at trailheads and along the system of trails including scenic vistas and landmarks, wildlife and unique flora. Public education and protection of these resources can be incorporated into trail planning to provide unique mixtures of natural and cultural exploration.
- g) *Increasing recognition*: The South Hills Trail system is becoming more widely known as a premier trail destination in Montana, specifically for mountain biking and trail running. This recognition has become a significant economic generator for Helena which can also bring more resources for the refinement and maintenance of the trail system. Future trail planning should balance the increased resources and changing user demands with the preservation of natural resources and natural aesthetics.
- h) *Shoulder seasons*: The South Hills Trails tend to provide a longer window of use than other trail systems in the region that typically experience a longer winter season. Trail management planning decisions must consider the potential impacts from users during wet and/or frozen conditions during the spring and fall seasons.

IV. Goals and Objectives

These goals were derived from the input of trail enthusiasts and stakeholders and from the trail coordinator's observations. The numbering system is not reflective of any priority.

Overall Goal or Vision: To develop a comprehensive and connected trail system that is easily accessible and provides fun, interesting and diverse recreational experiences, while protecting the area's natural and cultural resources.

Goal 1: The City of Helena, the Helena National Forest, the Bureau of Land Management, the MT Dept. of Natural Resources & Conservation, private landowners, and other user groups and organizations should continue to work together to create, fund and sustain a routine maintenance program dedicated to open space and trail management, maintenance and construction. The ongoing Open Lands Trail Coordination Agreement between the City and PPLT is a good example of a trail management partnership.

Goal 2: Ensure that the wildlife habitat and other natural resources are protected through sustainable trail projects, trail maintenance activities, public education and enforcement of rules and regulations.

Goal 3: Reclaim or reroute trails that are in poor condition, are unsustainable and/or are redundant.

Goal 4: Create new sustainable trails in appropriate areas that provide access or linkage to key destinations and other popular trails. On City open lands, new trail development should be associated with the compensatory closure of unneeded or redundant trails, with minimal net gain of trail mileage. Exceptions include trail segments on parcels acquired primarily for trail development or getting trail users off of roadways for safety reasons.

Goal 5: If feasible and fundable, develop sections of universally accessible trails that would meet the American with Disability Act (ADA) requirements to accommodate wheelchairs, elderly, young children, and others with disabilities who may want a less intense trail experience. ADA trails are expensive and will be periodically developed as funding opportunities are secured. In the next few years the City of Helena's Parks and Recreation Department will focus ADA efforts on bringing existing facilities into compliance.

Goal 6: Engage private property owners to ensure continued trail access across their property through trail easements or fee land acquisition. Agencies and user groups should accept responsibility for education, maintenance, posting signs, and other relevant activities.

Goal 7: Continue to create and refine trailheads that give the trail system a unique identity and that can be used for all Helena trails. These trailheads should provide information regarding safety, natural resources and trail etiquette. They should also provide maps and trail information. Some trailheads will provide parking, vault toilets and other amenities for trail users.

Goal 8: Continue to create and maintain a durable and attractive sign system that clearly marks trail directions and features without being obtrusive.

Goal 9: Develop a funding strategy that maximizes and leverages grant funds. Work with PPLT, trail user groups, and other organizations to prepare grant applications and solicit contributions for trail projects.

Goal 10: Continue to develop a volunteer assistance program for trail and trailhead maintenance and construction. Work with local user groups, businesses and service organizations to expand and improve the program.

Goal 11: Prioritize projects that help to disperse use away from heavily used areas such as the “front side” of Mt. Helena and Mt. Ascension. Education and a comprehensive guide with a list of recommended routes are vital components to this effort.

Goal 12: Develop a marketing strategy that facilitates user access to the trail system. This could include consistent signage (way-finding, trailhead and trail identification), other infrastructure improvements (vault toilets, parking lots, water sources, etc.), brochures, maintenance, events, and trail volunteers.

Goal 13: Trail Rx encourages a more active lifestyle and could include targeting portions of the South Hills trail system. Work with healthcare providers to inform them of the proximity and relative difficulties of the trail system.

Goal 14: Develop software that will make it easier to identify location of needed maintenance activities, the responsible entity, and what action is pursued.

V. Plan Recommendations

This section lays out the recommendations for action regarding the South Hills Trail System. They were developed from user comments and field observations. The first section describes recommendations and policies that can be applied to the overall South Hills Trail system. The second section contains recommendations for specific areas on the system.

Overall recommendations (non-site specific):

The following recommendations are policies that will guide the overall maintenance and development of the South Hills Trail System.

Maintenance and Construction

- a) PPLT will continue to work with the City of Helena, the Helena National Forest and other landowners to build capacity for the Trails Program to more effectively manage trail construction and maintenance efforts. This may include investigation/development of software to more accurately define location, need, and response for trail work.
- b) Some existing trails should be updated to provide a grade and trail width such that users of many skill levels can reasonably and comfortably use the trails. In many cases this would involve widening the trails and adjusting the tread location to avoid or minimize

fall-line slopes. Trails should be built to consistent trail standards by which all future trails are designed, built and maintained. Most trails should be maintained for multiple user-types, but some trails may be designed for a specific user. (Suggested standards appear in Appendix A of this document.)

- c) Implement a large scale maintenance plan that would reconstruct many of the drainage control features to provide larger scale, lower maintenance features such as grade reversals and grade dips. The use of smaller and more maintenance intensive designs such as water bars and drainage control devices should be utilized only in critical areas such as short, steep trails and other more highly erosive sites.

Trail System Design and Character

- a) Update trail signage in appropriate areas to clearly indicate the location of the user within the trail system and provide clear directions of trail routes at that location. This signage should also include a list of rules and regulations associated with trail use and recreation on public lands.
- b) Integrate the open space trail system into the urban environment by identifying recommended routes and appropriate signage that enables users to effectively locate official trail access points.
- c) Periodically evaluate trail use patterns and collect user information to guide trail management strategies and development priorities.
- d) Look for opportunities to develop easy and moderate trails to encourage trail use for all abilities. Most trails should be designed for multiple user-types, although some trails may be designed for a specific use to help manage traffic flow and trail conditions.
- e) If trail density increases can be mitigated, complete critical connections between major landscape features and existing trails to enable options for loop trips of various lengths and difficulties.
- f) Actively engage the local planners, real estate developers and the Parks Board to ensure trail connections between the South Hills Trails and urban trails, neighborhoods and downtown destinations are improved and expanded.

Special Trails

- a) Evaluate the need for and develop special use trails such as quiet nature walk/informational trails, interpretive trails, highly strenuous running/hiking routes, bicycle skills courses and gravity/flow bike trails.
- b) Pursue opportunities for developing new trails that would meet Americans with Disabilities Act criteria in selected areas.
- c) Develop methods to educate users about the natural and cultural history of the South Hills; any methods should be vandal resistant and compatible with the character of the open lands.

Volunteers and User Groups

- a) Develop a core group of trail maintenance volunteers that have completed basic training regarding trail construction and maintenance techniques.
- b) Expand the Adopt-A-Trail program to ensure that trail conditions are monitored and documented on an annual basis.

- c) Utilize and coordinate with volunteers and user groups to accomplish relevant tasks.

Agency Cooperation

- a) The City of Helena Parks Department, the Helena National Forest, and PPLT should ensure that a long-term agreements and funding are established to provide long term trail coordination services.
- b) Many of the areas identified for future trails development include large tracts of land managed by the BLM, therefore a formal working relationship should be established between PPLT, the BLM and other agencies that is similar to those negotiated with the Forest Service and City of Helena.

Private Property Issues

- a) Develop options for securing legally binding trail easements that provide permanent access across private property for existing and future trails.
- b) Develop standard signage and map symbols showing the locations where trails cross private lands and any changes to the trail rules associated with these properties.
- c) Investigate trail alignments that may cross lands where easements or other formal documents may be needed.

Enforcement and Patrol

- a) Limit the implementation of new rules and regulations to those necessary for safety and environmental sustainability of the trails.

Trailheads

- a) Maintain and expand the series of trailheads at key identified trail system access points. The infrastructure at trailheads has different levels of development as determined by their location, existing or desired usage. Trailheads can help disperse use by trail users onto a variety of trails to alleviate traffic in heavily used areas. The hierarchy of trailheads should be as follows:
 1. Major Trailhead: Located in areas where a number of trails or trail systems originate and have adequate space to accommodate parking for more than five (5) vehicles. Include large scale trail map and informational kiosk, parking for vehicles, and dog waste mitts. These sites would be candidates for future development of permanent sanitary facilities (vault toilets), water supply or other infrastructure amenities.
 2. Minor Trailhead: Located in areas that provide access to larger trail systems via one or more access trails. These sites have adequate parking space for several vehicles and provide large to medium scale trail maps with trail regulations, access gate, and dog-waste mitts.
 3. Neighborhood access point: Located in areas where primarily local residents gain access to trails. Limited parking is desired in these areas. Include information such as small trail access sign or map with regulations, designated access route or access gate, dog waste mitts.
- b) Trailhead signs should contain the following information:

1. Major trailhead sign kiosk: Detailed map of trail system, indicator of current location on trail map, trail etiquette, wildlife, natural resource, cultural resource information, agency logos.
2. Minor Trailhead and Neighborhood access: Sign with simple map of local trails showing current location on trail system, list of trail rules, agency logos.

Trail Signs

- a) Develop and construct a trail sign system that provides: trail name, directional information, and agency logo (include “level of difficulty” where appropriate).
- b) Trail signs should be discreet, unobtrusive and vandal resistant.
- c) If a trail is closed or rerouted, provide signs that clearly indicate the rationale for the closure, the extent of the closure and direction to the new or alternate route.

Trail Closures

- a) When a trail segment is closed or rerouted, provide signs that clearly indicate the rationale for the closure, the extent of the closure and direction to the new or alternate trail route.
- b) If possible, obliterate the old trail segment to clearly demonstrate that it is no longer in use and will no longer be maintained.
- c) Any new trail segment/reroute should be an improvement and should be user-friendly.

Map/Brochure

- a) Periodically update trail system maps to show current locations of official trails, parking areas, trailheads, trail rules, and other important information.

Pets

- a) Abide by recommendations for pet control outlined in the Open Space Management Plan.
- b) Trailheads and neighborhood access points should have clearly stated rules regarding pet control and picking up pet waste. Dog waste mitts should be provided at major trailheads.
- c) Provide increased public education regarding leash law rules (City) that require pet owners to keep pets on leash within 100 yards of the trailhead.

Wildlife

- a) The protection of wildlife habitat should continue to be a priority in the development of this trail system.
- b) Consider enforceable seasonal trail closures for wildlife security in sensitive areas.
- c) Work with Fish, Wildlife & Parks to identify areas of wildlife use and the effects of any trail alignment.

Protection and Interpretation of Pre-historic and Historic Resources

- a) Work to identify and educate the public regarding important pre-historic and historical resources in the South Hills planning area.

Weeds

- a) Weed control should be focused on trail access points and along trails to reduce the further spread of noxious weeds.
- b) Collaboration between agencies is encouraged to develop a comprehensive weed management agreement that enable effective weed control along trails that cross ownership boundaries.

New Subdivisions

- a) When a new subdivision is proposed, the City and/or County should work with the developer to determine if there is a viable trail opportunity and if so, that trail alignment and public access is secured. Trails can be considered as an alternative in parkland dedication requirements. Any setbacks from existing or planned trails should be observed.

Trail User Conflicts

- a) Segregation of user types is not recommended at this time. However, monitoring trail use patterns and reports of trail conflicts should be continued to provide early development of trail strategies, if necessary.
- b) Mountain bikers should be encouraged, through education, signs and brochures, to gain access to more remote trails that lie beyond heavily used areas such as the north and east sides of Mt. Helena, especially at peak times such as on weekends and afternoons. The development of bike-optimized trails would further help to encourage bicycle use on specific trails and away from heavily used hiking trails.
- c) Equestrian use is not allowed by code on City Open Space lands, but may be allowed on federal land. The associated rules and locations of trails approved for equestrian use should be clearly designated on trailhead signs and published trail maps.
- d) Adopted travel plans of federal agencies should be acknowledged and noted on published maps, if applicable.

Site-Specific Recommendations

This section refers to specific recommended trail projects. The study area has been broken down by general trail location into the following six primary geographical groups:

- Mt. Helena Park (trails between Grizzly Gulch, Le Grande Cannon, and downtown Helena)
- Wakina Sky (trails between Grizzly Gulch and Oro Fino Gulch)
- Rodney Ridge (trails between Oro Fino Gulch and Davis Gulch)
- Mt. Ascension Park (trails between Davis Gulch, Arrowroot Drive and southern edge of Helena City limits)
- East Side (trails between Arrowroot Road and Interstate 15)
- Remote Trails (trails that extend beyond existing trail networks such as the Mt. Helena Ridge Trail)

Within each of these categories the proposed trail projects are grouped by type of trail project, which include:

- Trail Maintenance / Improvement
- Trail Reroutes: May include improved trail location, avoidance of hazards or relocation of trails off of private property. Some of these projects will involve reroutes, closures or new construction of associated trails when the project involves a trail junction or adjacent trail. Some rerouted trail segments may need to be defined and accepted into the South Hills Trail System for maintenance.
- New Trails – Typical: Routes or areas for future trail development which are typically expansion areas located near the existing trail system. These trails would be multi-use trails that could be utilized by bicycle and foot traffic on all lands and may include use by horses on Forest Service property. These trails are defined as typical trails since they would follow typical trail construction parameters for single-track trails and would be designed for trail use in either direction. Most new trail segments may need to be defined and accepted into the South Hills Trail System for maintenance.

The trail maintenance/improvements, reroutes, or new projects are listed, but not prioritized. This provides opportunities and flexibility for conducting investigations, creation of formal agreements, volunteer coordination, and funding.

Some trails may require formal easements, agreements, acquisitions, environmental assessments, or other actions.

Note: * indicates projects that *may* require trail easements or land acquisition.

Mt. Helena Park – All trails located on City of Helena Open Space, USFS and BLM property

Major Trail Maintenance / Improvement

1. Hogback – Improve drainage and tread condition between Prospect Shafts intersection and top of Mt. Helena.
2. Powerline – Improve drainage and tread condition between Prairie intersection and 1906 intersection on the back side of Mt. Helena. Inhibit trail widening.
3. Prospect Shafts – Improve drainage and tread condition between Mt. Helena parking lot and Hogback intersection. Inhibit trail widening.
4. Swaney – Eliminate trails that cut switchbacks near the Tubbs trailhead.

Trail Reroutes

1. Diretissima/Road to Mars/Old Chevy – Reroute portions of existing trails to reduce trail grade, minimize switchbacks and provide improved visibility along trails.
2. Quarry/Bitterroot/Prairie – Reroute sections of these trails to minimize redundancy and provide clearer designation of official trail routes.
3. McKelvey/South Dump Gulch – Reroute trails to provide optional routes from Mt. Helena Ridge Trail down to the Dump Gulch parking lot. (This could also involve development of directional trails and signage to reduce two way traffic on the lower portion of McKelvey trail, but the need would have to be assessed. Realignment of existing trails can be done with a site specific analysis. Adding additional routes will generally be avoided. Lower reaches of McKelvey would be on BLM land)
4. Mt. Helena Ridge – Possible reroutes to reduce trail maintenance requirements and construct a more sustainable trail.

New Trails – Typical

1. West side to Ridge* – Extend trail to west as an alternate access to and from the Mt. Helena Ridge Trail. (The trails on Mt. Helena may be at saturation (usage and density).)
2. Unnamed – Construct loop trail west of Old Chevy Trail (on City land) and accept this social trail into South Hills Trails System.
3. McKelvey – Construct new trail connecting the Mt. Helena Ridge Trail to the Dump Gulch parking lot in coordination with rerouting South Dump Gulch Trail.
4. Prairie/1906 to Prospect Shafts/Dump Out – Discuss/evaluate new trail along east sidehill of Mt. Helena.

Wakina Sky – All trails located on US Forest Service, BLM or private land.

Major Trail Maintenance / Improvement

1. Barking Dog – Implement significant drainage and tread improvement where needed (or reroute trail onto adjacent slopes if alignment and access are appropriate). (Any realignment of existing trails on USFS can be done with a site specific analysis.)
2. Flow trail in Wakina Sky gully – Improve user experience.

Trail Reroutes

1. Wakina Ridge - northward extension – Work with private landowners and USFS to formalize agreement for trail corridor; if feasible with landowners and the USFS, improve/widen tread where needed and accept this social trail into the South Hills Trails System. Note that the skills course in the bottom of Wakina Gulch and the addition of the switchbacks up to the Wakina Ridge trail were intended to replace the northward extension of the Ridge trail.
2. Barking Dog – Reroute the majority of this trail onto single track and/or existing roads on slopes adjacent to main drainage. The new route would provide improved visibility and drainage control on trail, while creating a more desirable and safer trail experience. (Any realignment of existing trails on USFS can be done with a site specific analysis.)

New Trails – Typical

1. Black Forest* - northward extension – Work with private landowners and USFS to formalize agreement for sustainable trail corridor/alignment. If feasible, construct trail to connect northern terminus of trail to Grizzly Gulch road.
2. Wakina Sky* – Extend trail to the south to provide access to Unionville and Oro Fino Gulch. (This may entail working with landowners (private and USFS) to reopen route once known as the Junk Yard Trail; alignment must be legal and sustainable.)
3. Barking Dog – Construct spur to connect this trail with Springhill Road possibly using old road beds in the area. (In coordination with maintenance/improvement or reroute noted above.)

Rodney Ridge – All trails located on US Forest Service and BLM property or private land.

Major Trail Maintenance / Improvement

1. Rodney Meadow Trail Intersection – Simplify trail intersections in meadow to provide single point of access for Roger Fuchs, Rodney Meadow and Rodney Ridge trails. This

would involve reclaiming the web of abandoned roads and trails that exist in the meadow. This project would also involve installation of trail map at the trail junction and decommissioning of old roads and unofficial trails in the meadow.

2. Waterline – Widen trail and clear trees to accommodate additional users.
3. Waterline - northward segments* – Seek approval from private property owners for easements/acquisitions along route of existing trail.
4. Rodney Ridge - southward segment to Lupine Drive – Seek approval from private property owners for easements/acquisitions along route of existing trail.

Trail Reroutes

1. Pinchot – Reroute portions of trail to reduce trail grade, improve trail visibility and avoid large areas of beetle-killed trees. (Any realignment of existing trails on USFS can be done with a site specific analysis.)
2. Davis Gulch Bike Skills Course – Reroute portions of this trail to provide improved tread stability and visibility along trail. Relocate and improve the uphill route to the existing trail in the drainage bottom and remove the single track trail uphill of the skills course.
3. Don't Fence Me In – Consider slight reroute to improve grade and drainage. (Any realignment of existing trails on USFS can be done with a site specific analysis.)

New Trails – Typical

1. Roger Fuchs – Construct short connector trail between upper terminus of Davis Gulch Bike Skills Course and Roger Fuchs.
2. Sparta St. to Eagle Scout – Construct trail (on BLM land) that connects Sparta Street trailhead to Davis Gulch near the DeFord / Eagle Scout trail access.

Mt. Ascension Park – Trails located on City of Helena, PPLT and US Forest Service property or private land.

Major Trail Maintenance / Improvement

1. Mt. Ascension Loop Trail – Widen trail tread and clear trees along trail on north side of Mt. Ascension; discuss/evaluate obliteration of the trail on the east side of Mt. Ascension (steep, erosion potential, usage, trail race route, etc).
2. Entertainment – Widen tread in narrow areas and clear trees that could pose safety hazard (on south end).
3. Install formal parking area at south end of Beattie Street.

Trail Reroutes

None at this time.

New Trails – Typical

1. Deford to Archery Range – Construct connector trail (on HNF and/or City land) to offer shorter loop options on this popular route.
2. Deford/Davis Gulch to Eagle Scout – Improve social trail (on City land) and accept into South Hills Trails System.
3. Mt. Ascension Loop to Bompert Hill* – Construct trail that connects the Mt. Ascension Loop trail (or Eddy McClure trail) to the trail system on Bompert Hill.

4. Entertainment to Arrowroot parking area – Improve existing tread along ridge and old driveway and construct new trail connection to parking area.
5. Entertainment to Tucker Gulch* – Extend trails from the Entertainment trail to Tucker Gulch Road via southern extension of Archery Range Trail to protect wildlife habitat. (Lower priority for USFS.)
6. Davis Gulch, Tucker Gulch Road to Cox Lake – Construct trail connections between Davis Gulch trails (e.g. Roger Fuchs, Bike Skills Course), Tucker Gulch trails (yet to be constructed) and the Cox Lake area trails (e.g. Springhill road, Rodney Ridge trail). (Lower priority for USFS.)

East Side – Trails located on City of Helena Open Space property.

Major Trail Maintenance / Improvement

1. Nob Hill – Improve condition and signage at official Nob Hill access points to reduce use and development of access trails across private property.

Trail Reroutes

1. Nob Hill – Reroute portions of Nob Hill and associated access trails to provide clear trail routes on public open space lands or secure easements on private lands.

New Trails – Typical

1. Far East to Bompart* – Construct connector route between the Far East trail at Winscott Road and Bompart Hill trails. (Crosses significant/multiple private lands and may not be feasible.)
2. Eddy McClure to Far East* – Construct connector trail to avoid road connections between eastern terminus of Eddy McClure and Far East trail.
3. Folf Course Donaldson Barn to Quarry Road* – Construct trail using existing road.

Remote Trails – Trails located on US Forest Service, BLM and private property.

Major Trail Maintenance / Improvement

1. Mt. Helena Ridge – Improve drainage and tread condition on several segments of trail to improve footing and better accommodate heavy use.

Trail Reroutes

1. Mt. Helena Ridge – Reroute portion of trail closest to Park City Trailhead to reduce trail grade and improve drainage on trail. Reroute other sections of trail on steeper slopes, erosive soils and snow catchment areas to improve trail durability and safety.
2. Show Me The Horse – Reroute segments of the trail to better utilize natural drainage features and improve visibility along trail.

New Trails – Typical

1. Mt. Helena Ridge trailhead to Brooklyn Bridge – Determine alignment (and any related process and/or regulatory requirements) and construct trail connecting Park City trailhead to the Brooklyn Bridge trailhead at the top of Grizzly Gulch road. (Note: Location to be in corridor on USFS land on the west side of Grizzly Gulch Road.)

2. Brooklyn Bridge* – Complete the connection of this existing trail to an eastern access point that would enable travel in both directions. (Any realignment of existing trails on USFS can be done with a site specific analysis.) Possible locations for the eastern terminus point would be in the vicinity of Unionville, Cox Lake, Tucker Gulch, and/or Holmes Gulch. (Any alignment of proposed trails on USFS will be done with the Ten Mile South Vegetation implementation.)
3. LeGrande Cannon connections* – Investigate connection/alignment from the west end of LeGrande Cannon to Colorado Gulch; build trail connection if feasible.
4. Eddy McClure to Montana City* – Investigate a singletrack trail between existing portions of Eddy McClure to an access point within Montana City. (As MT City area grows USFS feels this is a valuable connection to entertain in the future.)
5. Unionville to Brooklyn Bridge – Investigate possibility of establishing trail via Black Alder Gulch Road or other alignment; build trail connection if feasible.
6. Montana City to Brooklyn Bridge – Investigate trail route between Montana City and Brooklyn Bridge Trail via Jackson Creek.
7. Tucker Gulch to Holmes Gulch – Using existing County ROW or other approved route, to establish a trail connecting Tucker Gulch Road to Holmes Gulch Road. May need to work with private landowners at the top of Tucker Gulch.
8. Mt. Helena Ridge to Colorado Gulch and Rimini Road – Investigate alignment and related process to build trail between the upper Mt. Helena Ridge near Park City trailhead to new or existing trail access points on Colorado Gulch and Rimini Road.
9. Brooklyn Bridge to Blackhall Meadows and Flume Trail – Investigate alignment and related process to build trail to connect Brooklyn Bridge trailhead at top of Grizzly Gulch to Blackhall Meadows and/or Flume trails located in Travis Creek drainage.
10. Mt. Helena Ridge/Show Me The Horse to LeGrande Cannon and Lombardy Drive* – Investigate connection/alignment/process and build trail connecting Mt. Helena Ridge (near the junction with Show Me The Horse) to the western edge of LeGrande Cannon and the parking lot on Lombardy Drive.
11. Continental Divide Trail to Brooklyn Bridge* – Investigate connection/alignment/process westward from Brooklyn Bridge to the CDT; consider wildlife and other issues; build trail connection if feasible.

Note that the USFS-HNF cannot support any further trail development in the Colorado Gulch area at this time (#8-11). It is considered a critical wildlife security area. The City water flume is under special use authorization to the City of Helena, the USFS cannot promote recreation activity along that route that provides water to the City of Helena.

New Trails – Specialty

1. ADA Trails - Construct trails that comply with the American with Disabilities Act guidelines near popular trail access points such as Mt. Helena and Mt. Ascension.
2. “Beginner Trails” – Construct wide, low gradient trails that are clearly identified to promote use by beginning mountain bikers and youth.
3. Interpretive Trails – Develop short loop trails that contain signage or other informational media describing natural and/or cultural resources in the area. These trails could incorporate existing trails or involve construction of new trails or reroutes to highlight/interpret specific areas of interest.

4. Directional trails – Construct trails designed for use in a single direction to reduce user conflicts on trails. Some of these trails would be optimized for use by mountain bikers with flowing corners and enhanced drainage features.

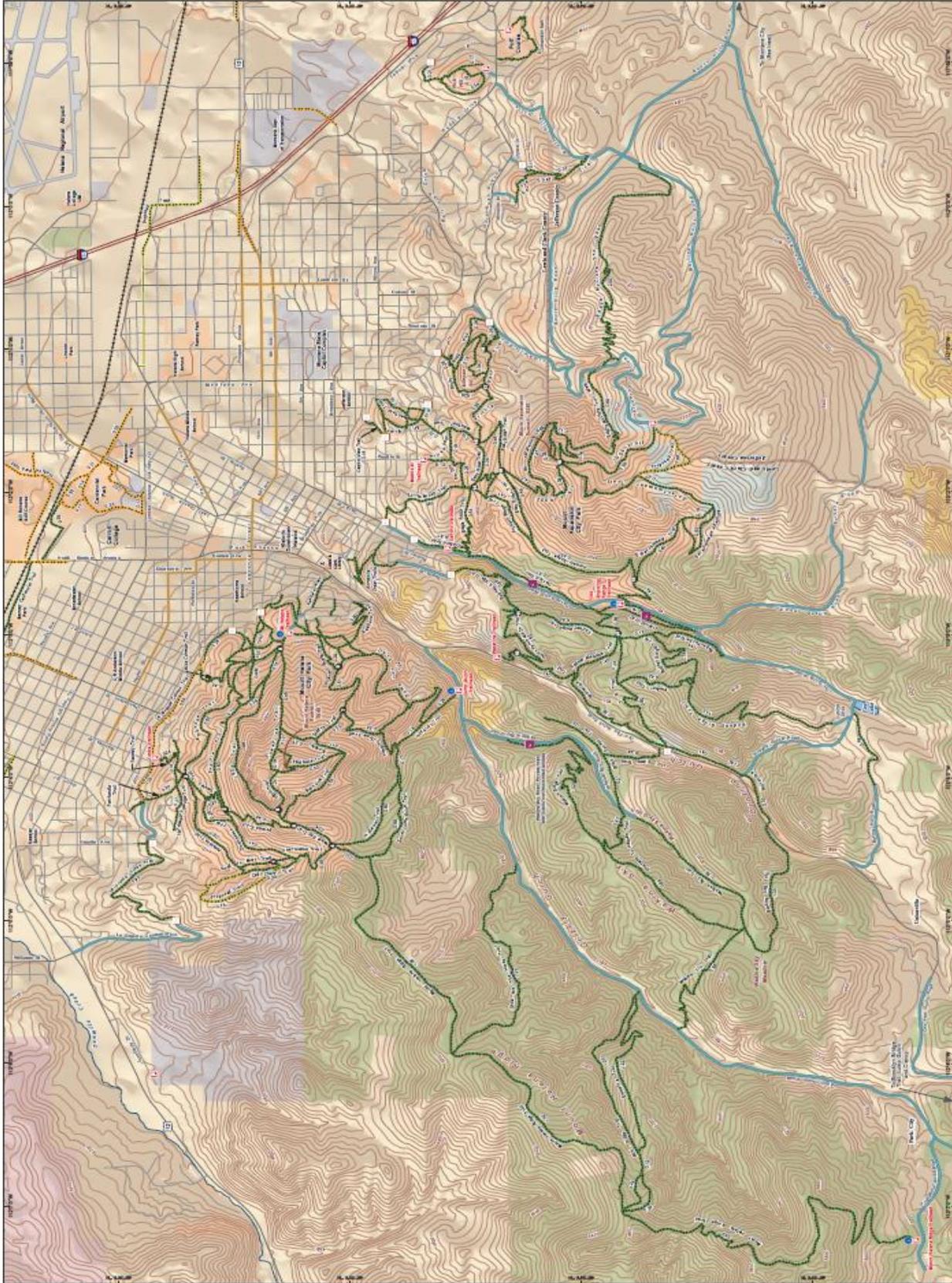


Figure 1. Trail Map

Appendix A: Trail Standards

This plan focuses primarily on the mountain trail system on rugged terrain in the South Hills. The primary users of these trails are hikers and mountain bikers. On Forest Service lands horseback riders occasionally use the trails but equestrian use is prohibited on City open space. The plan also calls for segments of trails that can accommodate persons with disabilities including wheelchair users, the elderly, and people that want a less rigorous trail experience.

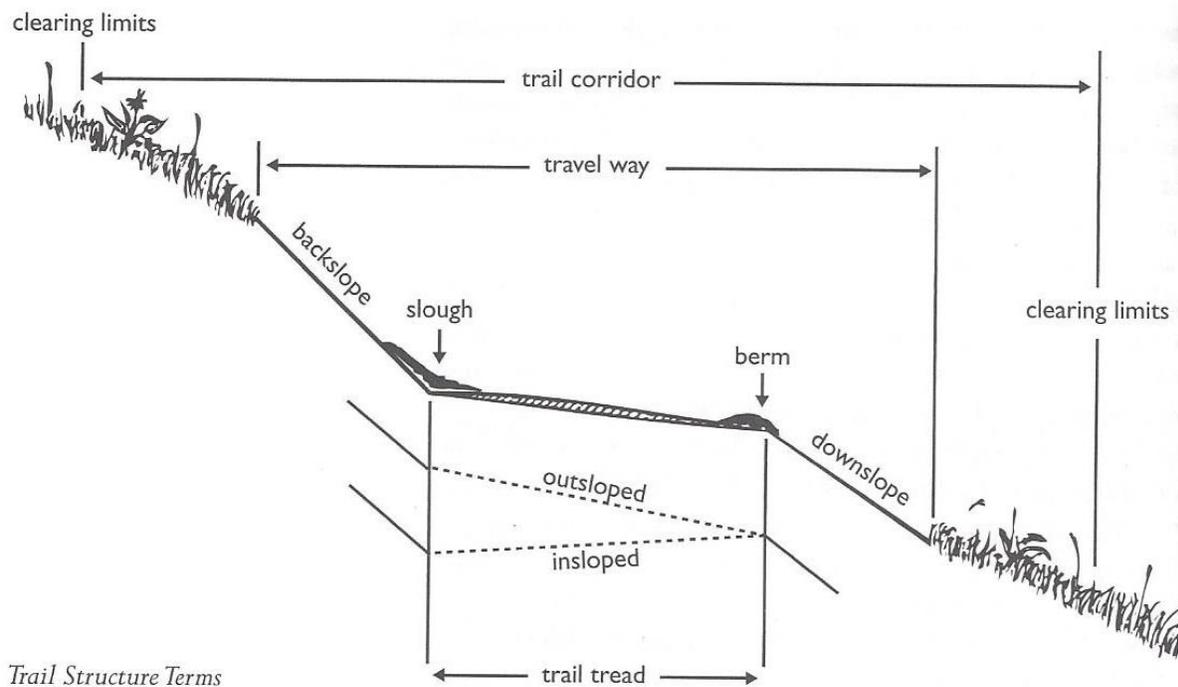
With this in mind, trails in the South Hills should be constructed and maintained for accommodate all intended users. In addition trails must be sustainable to reduce maintenance costs and to protect the natural resources. Sustainable trail design incorporates standards for grade, tread and erosion control. Many of the existing undesignated trails that will become part of the official trail system will need to be rebuilt and/or rerouted over time to incorporate these elements.

Before constructing a trail it is important that the trail be thoroughly laid out by knowledgeable trail planners. Grades should be calculated using a clinometer. Flagging and/or paint can be used to mark the trail route. Use paint if trail is not to be built immediately as vandals will remove flagging. If volunteer labor is used to build the trails, they should be educated in the philosophy of sustainable trail building and the safe use of trail building tools.

Mountain trails

One of the best resources for sustainable trail building is *Building Better Trails* published by the International Mountain Biking Association. Although IMBA represents the sport of mountain biking, this book considers all intended users.. Although these guidelines call for less steep trails than we are generally used to in Helena, trails can still be designed to be fun and challenging.

Another resource is *Lightly on the Land* written by the Student Conservation Association and published by The Mountaineers Books. The Second Edition (2005) provides the following illustrative diagram of terms used in this appendix.



The following are the design guidelines for mountain trails. (Consult the *Building Better Trails* book for more in depth information on designing and building sustainable trails.)

Trail grade:

The Half Rule: “Trail tread grade should not exceed half the grade of the hillside or side slope the trail is traversing”. For example if a hillside has a 20 percent grade, the trail across it should not have more than a 10 percent grade. This will allow water to flow over a trail rather than down it. Of course there are caveats to this rule including instances when steeper grades are unavoidable. Short sections of trail with grades up to 15% are acceptable.

The 10% rule: Try and keep overall rail grade to 10 percent or less. If soil conditions allow sections of trail can be steeper than this.

Tread width: Helena trail users are used to single track trails. Generally the tread need only to be wide enough for a person walking or riding their bike (about 20 inches). However, in certain areas near popular trailheads the trail may be wider to accommodate passing in these potentially congested areas. The lower 1906 Trail is a good example of a wider trail near a trailhead. In other cases, it may be desired to convert old roads into a narrower trail corridor. This can be done by placing rocks and debris in the corridor to create a more twisting trail that drains water more effectively.

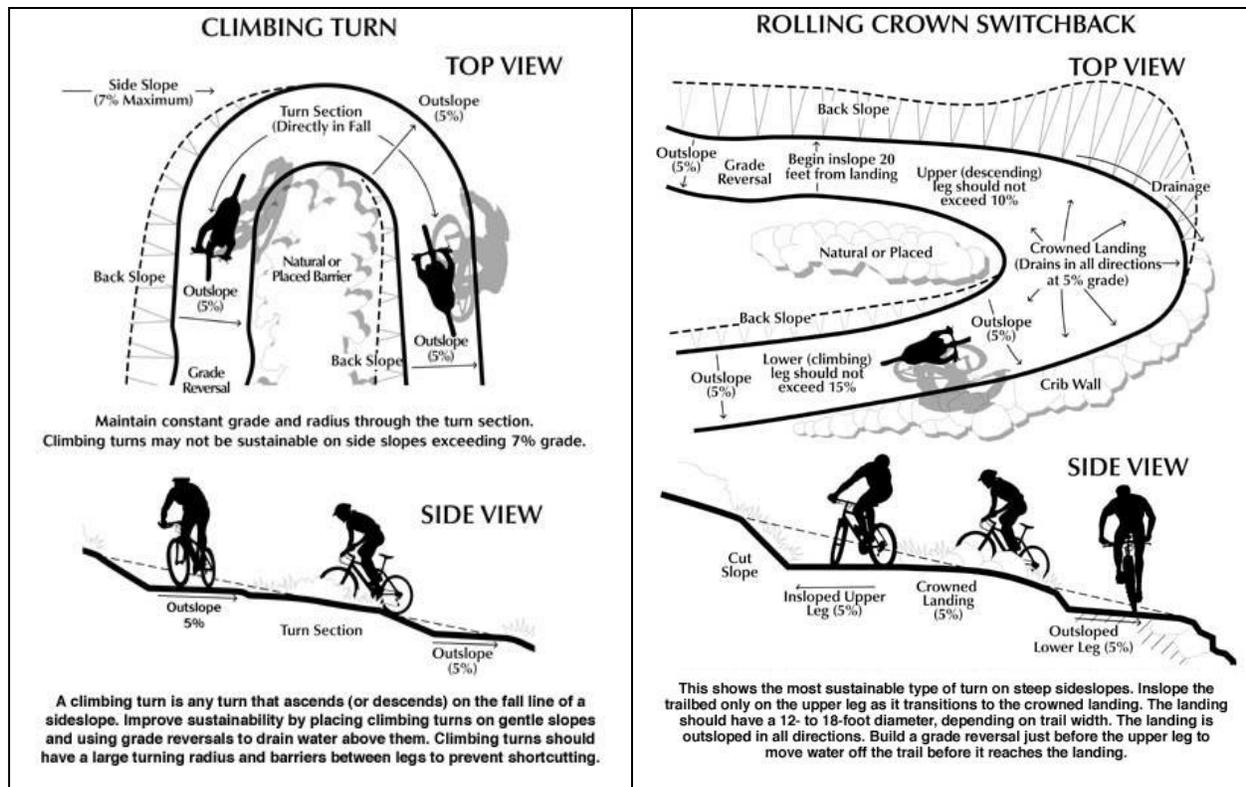
Outslope: Trail treads should be built with a slight “tilt” towards the downhill side approximately 5 percent. Outslope allows water to easily drain off the side of the trail and not collect on the tread.

Grade reversals: Gentle rolls or undulations in a trail provide areas that divert water off of a trail. Building grade reversals into a trail initially prevents the need to place erosion control structures (i.e. water bars) in the trail tread.

Clearing vegetation: Generally the trail corridor should be twice as wide as the tread width. Clear tree limbs and small trees that may be a hazard to mountain bikers (i.e. catching handlebars) and the eyes of hikers.

Turns:

Climbing Turn: a climbing turn is more desirable because it allows a more gradual direction change. The radius of a climbing turn is generally about 30 feet. However, climbing turns can only be built on grade of 7 percent or less.

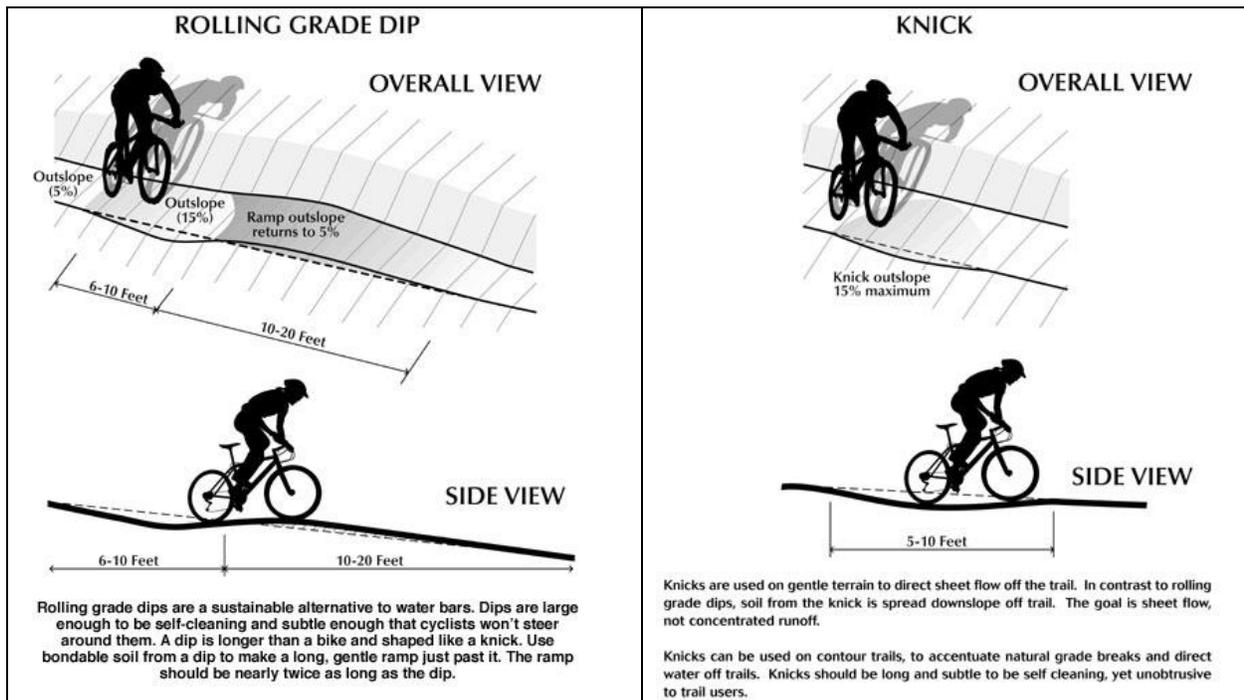


Switchback: Switchbacks are necessary for making turns on steeper terrain and are much “tighter” than climbing turn. The South Hills trail system has many examples of switchbacks both good and bad. See the IMBA manual for a good description of switchback construction.

Natural features: In some cases it may be necessary to remove obstacles, such as rocks and trees, from a trail corridor to make it safer and usable for the desired user. However if these natural features do not affect the overall safety of the trail user, they should be left in place. They can add character to a trail as well as making the trail experience more interesting.

Drainage Features: Slough and berm areas may be removed when they accumulate and prevent adequate drainage. If an existing trail has drainage problems the following features can be added to help alleviate the problem. If at all possible foreign structures such as water bars should be avoided. They can interfere with the “flow” of the trail and require more maintenance and replacement. In addition, water bars encourage trail users to walk or ride around them creating more trail maintenance problems.

Rolling Grade Dip: A RGD is generally a long (6-10 feet), shallow depression built into the trail with a gentle rise built on one end (10-20 feet long). If built correctly, these structures are difficult to detect, yet allow efficient drainage of water. RGD may be difficult to build in Helena’s rocky soil, but can work in many instances.



Knick: Knicks are gentle fanned shaped depressions about five to ten feet in diameter built into the trail that open towards the downhill side of the trail. These features are easy to build and are effective at shedding water from flatter sections of trail.

“Accessible” Trails:

There are opportunities to create trails that are more accessible for wheelchair users, the elderly or others that want a more leisurely trail experience. Although there are not many places in the South Hills that can accommodate this type of trail, the old roads along the base of Mt. Ascension may be well suited for this use. It is recommended that these trails be designed in cooperation with those knowledgeable in accessible trail and intended users.

A moderately accessible trail should be at least 36 inches wide, have a maximum running slope of eight (8) percent and a cross slope not to exceed five (5) percent. Sections of such a trail may be up to 14 percent for distances not to exceed 50 feet. Accessible trails will require trailheads

that provide accessibility with designated parking spaces and access gates that will allow wheelchair access to the trails.

Closing, Reclaiming and Rerouting Damaged Trails

Sometimes the best solution for eroded trails isn't aggressive maintenance. Instead, it may be more effective to close the trail and if appropriate, replace it with a new, sustainable, re-route. Designing and building a re-route may be time-consuming and hard work, but in the long run closing a poorly functioning trail is better for the environment. A critical aspect of any re-route project is closing and reclaiming the old route. The following eight elements are important to trail restoration.

(Source: IMBA Trail News Fall 2002 Volume 15, Issue 4 p.9)

1. Create an outstanding new route.

A key component of any trail closure plan is creating a fun and sustainable alternative. It is vital to provide a new trail that is more appealing than the old route. Otherwise, some will continue to use the original trail.

2. Design a smooth intersection.

Create a natural, seamless transition onto the new section. Trail users shouldn't be able to recognize where the re-route begins.

3. Educate trail users.

Most conflict surrounding trail closures can be avoided if people understand why a route must be closed. Make sure to spread the word about what you are doing and why. Post signs to let people know what changes will be taking place. Ask for public feedback and recruit volunteers for the trail work. Once work is complete, consider posting maps showing the new trail and explaining why the old trail is closed. Be positive and focus on the benefits of the re-route.

4. Break up the old tread.

Completely break up, or scarify, the compacted soil in the old trail tread to allow the seeds and roots of new plants to penetrate. Don't skimp on this key step. Use pulaskis, pick-mattocks, or even a rototiller.

5. Control erosion.

It is essential to stop water flowing down the route. Check dams are easy-to-build structures, typically made of logs, rocks or straw bales fixed across the trail to trap soil. Be sure check dams are tall to trap the soil, and well secured so that they won't wash away. A wide range of manufactured erosion control materials are available that are designed to absorb and retain water while providing an ideal microclimate for the growth of vegetation. These include straw wattles, erosion control blankets and commercial mulches that combine fiber, seed, fertilizer and bonding agents. If the trail you're closing is especially rocky and little soil remains on the surface, try using burlap bags filled with dirt as your check dams. Cut an "X" into the top of a moist bag and transplant a local shrub.

6. Transplant vegetation.

Starting plants on the old trail is the best way to restore the landscape. Disturbed soil often provides an opportunity for invasive plant species to take hold. Combat these invasives by planting only native species. Transplant shrubs and small trees from your re-route construction. Use proper transplanting techniques, fertilizer and a portable drip irrigation system to reduce transplant shock.

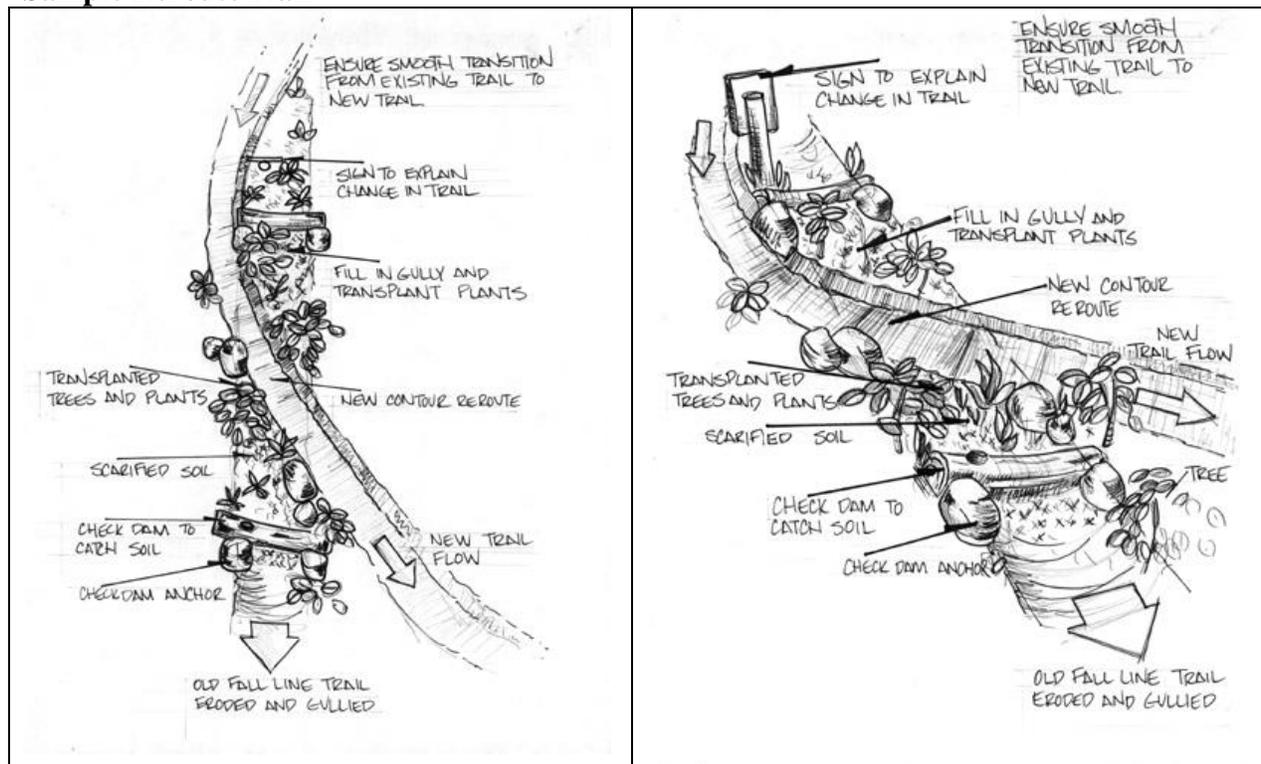
7. Disguise the corridor.

The best way to keep people off the closed trail is to make it look like it was never there. The goal is to eliminate the visual corridor, including the airspace above the old trail tread. Drag logs and branches across the tread. Plant deadfall in the ground vertically to block the corridor at eye level. Rake leaves and other organic matter over the tread as the final step to complete the disguise and aid new plants.

8. Block the corridor.

As a last resort you can block the beginning and end of the trail with a fence and signs. The fence will look out of place, and could draw more attention to the closure, which may cause controversy. Answer expected questions by posting signage explaining the closure on, or near, the fence. When the trail has been closed for a while the fence can be removed.

Sample Reroute Plan



Drawings by Mark Schmidt, IMBA

Appendix B: Letter of Decision Regarding Trail on USFS land in the South Hills.

Background

The Helena Ranger District proposed to add some of the existing trails within the South Hills to the designated Forest transportation system. Trails in this proposal apply to only those sections of the following trails that lie on National Forest System Lands. Many of the trails evolved through long-standing recreation use on National Forest System lands adjacent to Helena. Those trails currently provide popular opportunities for hiking, mountain biking and jogging. The Helena National Forest recognizes the fact that this proposal does not include every route the public is currently using. Our intent is to be more active in the resource management and identify the most heavily used routes in this valuable recreation resource. Generally, the area is described as the “South Hills” and includes the following locations: South Hills drive on the east, Mount Helena City Park on the west, Cox Lake area on the south, and the residential area of Helena on the north. (See attached map)

The trails included in this proposal consist of the following;

Wakina Sky*, Show Me the Horse*, Mini Ridge, McKelvey Trail, South Dump Trail, Stairway to Heaven, Pinchot Trail, Roger Fuchs Trail*, Entertainment Trail, Archery Range, TR Trail*, Emmits Ridge and Black Forest*. Portions of these trails (*) will need relocation to meet Forest Service standards for sustainable trails and allow for clear public access. A separate analysis will be done for site specific trail improvements. These listed trails will add 13.58 miles to the Helena National Forest inventory.

Decision

I have decided to add those trails listed above to the Helena National Forest trail system. This action is categorically excluded from documentation in an environmental impact statement (EIS) or an environmental assessment (EA). The applicable category of actions is identified in agency procedures as “Construction and reconstruction of trails” (36 CFR 220.6(e)(1)) described at FSH 1909.15, Chapter 30, Section 31.2 (1).

I find that there are no extraordinary circumstances that would warrant further analysis and documentation in an EA or EIS. I took into account resource conditions identified in agency procedures that should be considered in determining whether extraordinary circumstances might exist:

- Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species. Direct, indirect, and cumulative effects have been analyzed for wildlife and fisheries. And are described below:
 - WILDLIFE: Findings show implementation of the proposed action would have *no effect* on federally listed species: grey wolf, bald eagle, grizzly bear and Canada lynx.
 - The project will *not impact* the following sensitive species known or suspected to

occur in the project area: fisher, wolverine (possible transient individuals only). Effects to boreal toad and northern leopard frog (sensitive species) are expected to be minor and temporary in nature, with some possible long-term benefits; this action *may impact individuals or habitat*, but will not likely result in a trend toward federal listing or result in reduced viability for the population or species. Northern goshawk, peregrine falcon, black-backed woodpecker, common loon, harlequin duck, flammulated owl, northern bog lemming, Townsend's big eared bat, and the plains spadefoot toad are not believed to be present within the project area and/or there is not believed to be suitable habitat present for these species.

- FISHERIES: The project will have “**no impact/no effect**” on sensitive or federally listed fish species.
- Flood plains, wetlands, or municipal watersheds – The project will result in no net loss of wetlands or alter the current floodplain.
- The project area is not in a municipal watershed
- Congressionally designated areas such as wilderness, wilderness study areas, or national recreation areas – The project is not located within a wilderness, wilderness study area, or national recreation area (Project File maps)
- Inventoried roadless areas or potential wilderness areas – The project area is not located within or adjacent to any inventoried roadless areas. (Project File maps)
- Research natural areas – The project area is not located within any research natural area. (Project File maps)
- American Indians and Alaska Native religious or cultural sites – No known cultural resources will be affected.
- Archaeological sites, or historic properties or areas – The proposed action will not affect the current condition of any known existing cultural resources or high probability locations.

Public Involvement

This action was originally listed as a proposal on the Helena National Forest Schedule of Proposed Actions and updated periodically during the analysis. Articles explaining proposal and requesting comments were published in the local newspaper. A mailing was completed to those people interested in commenting on proposed activity. A 30 day comment period was open for interested citizens to voice their concerns or comment on their support of the proposal. Over 50 comments were received and analyzed. State and local governments were also solicited for comments.

Findings Required by Other Laws and Regulations

This decision is consistent with the Helena National Forest Plan, as required by the National Forest Management Act. The project was designed in conformance with Forest Plan standards and incorporates appropriate Forest Plan guidelines for maintenance and reconstruction of trails, Chapter II, Pages 32 and 33 and FSH 2309.18.

The project is also consistent with the requirements found in but not limited to the Endangered Species Act, Clean Water Act, and the National Preservation Act in the determination that no extraordinary circumstances exist. For additional detail, see discussions under “Decision” above and analysis found in the Project Record, available for review at the Townsend Ranger District office.

Administrative Review (Appeal) Opportunities

This decision is not subject to administrative appeal (36 CFR 215.12 (f)).

Implementation Date

This project will be implemented immediately upon signing of this decision document.

Contact

For additional information concerning this decision, contact: Roy Barkley, Trails Project Coordinator, Helena National Forest 406-495-3853

Duane H. Harp
Helena District Ranger

Date